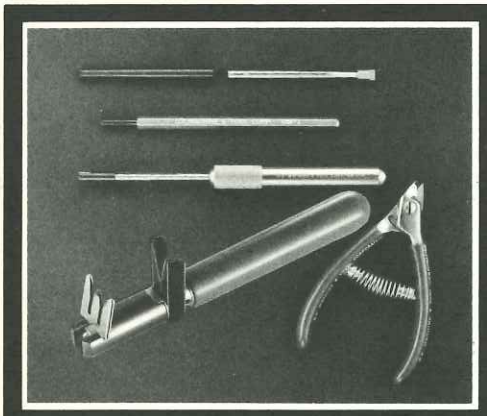
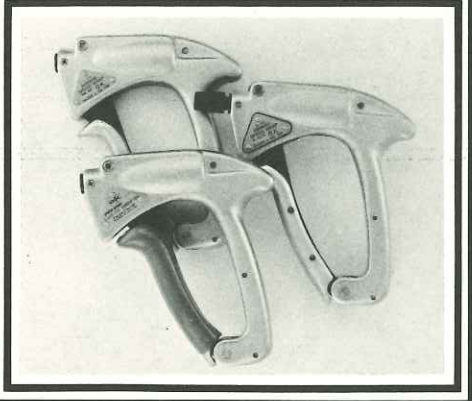
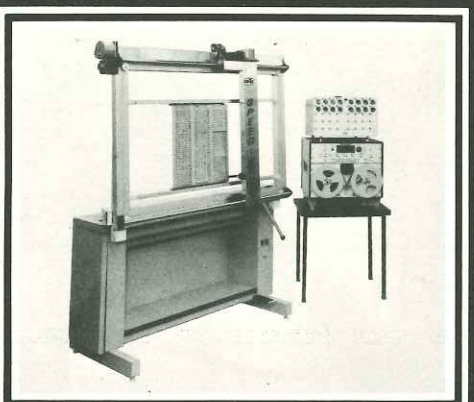
OCTOBER 1976

CATALOGUE 36G

IN WIRE WRAPPING ok® HAS THE LINE...





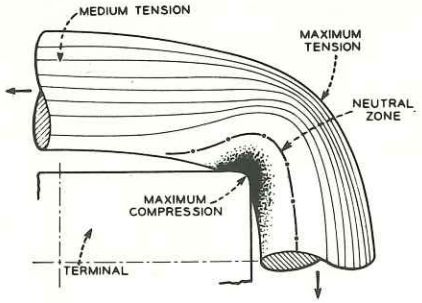


OK MACHINE & TOOL CORPORATION
3455 CONNER STREET, BRONX, N. Y. 10475 U.S.A.
PHONE (212) 994-6600 TELEX NO. 125091

The Technology of Wire-Wrapping

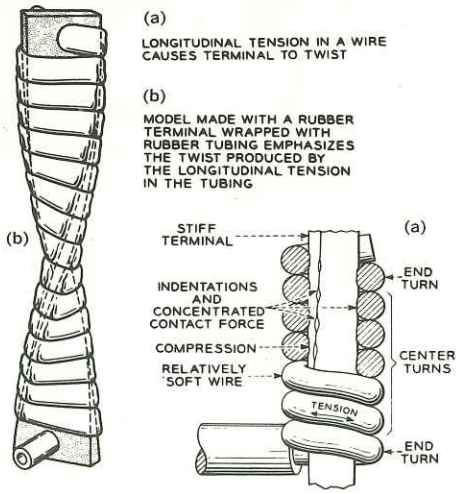
A wire-wrapped connection is made by coiling the wire around the sharp corners of a terminal under mechanical tension. This method of connection was developed by Bell Telephone Laboratories, Western Electric Company.

METAL-TO-METAL CONTACT

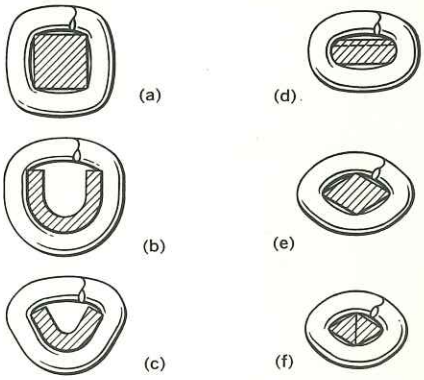


■ By bending the wire around the sharp corner of the terminal the oxide layer on both wire and terminal is crushed or sheared, and a clean, oxide-free metal-to-metal contact is obtained.

HIGH PRESSURE CONTACT



TERMINALS SUITABLE FOR SPEED-WRAP CONNECTIONS



(a) Square Terminal
(b) U Terminal
(c) V Terminal
(d) Coined and Flattened Wire Terminal
(e) Coined Wire Terminal
(f) Twin Wire Terminal

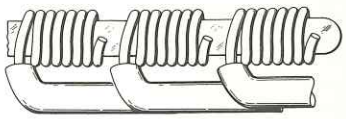
■ A terminal must have at least two sharp edges.

STRENGTH OF CONNECTION

■ The strength of a SPEED-WRAP connection is considerably in excess of that of a soldered one. It is less easily stripped from the terminal and is less subject to breakage.

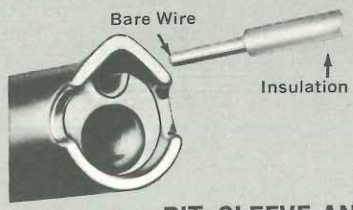
GAS TIGHT CONTACT AREAS

■ The contact areas of a SPEED-WRAP connection remain gas tight when exposed to temperature changes, corrosive atmospheres, humidity and vibration.



TRIPLE CONNECTION

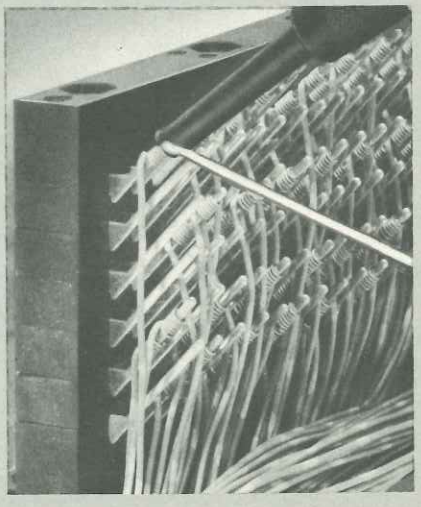
How To Make SPEED-WRAP Connections With OK TOOLS



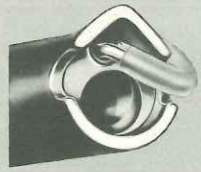
BIT, SLEEVE AND PRE-STRIPPED WIRE

Step 1

WIRE INSERTION

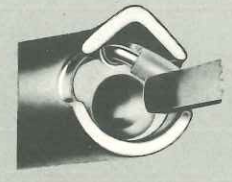


Step 2



WIRE ANCHORING

Step 3



TERMINAL INSERTION

Step 4

FINISHED CONNECTION

INTRODUCTION

■ As the electronic industry has advanced in technology, the need for a faster, more reliable and inexpensive method of making electrical connections has become a necessity. In years past, it was sufficient to solder most connections since there was ample room between terminals and relatively few connections by today's standards. However, today's electronic equipment is far more complex, leading to many more terminals. The task is compounded by the reduction in equipment size. The end result is far more terminals—in much less space.

■ To solve this problem, the industry has had to adapt to a completely different type of connection. The solderless connection by wire-wrapping technique is now a standard method of making connections to terminals in high density electronic equipment.

TYPES OF WRAPPING TOOLS

■ Pneumatic tools are preferred for production work.

■ Where compressor air is not available, electric tools are recommended.

■ Battery or hand operated tools are used for service and repair work.

EASY REMOVAL

■ A distinct advantage of wire-wrapping is the ease with which a wire may be removed from a terminal due to error or wiring modification. An unwrap tool is slipped over the terminal, engaging the first turn of the connection. Rotating the tool, the connection is removed in seconds, without damage to the terminal.

WIRE

■ Solid wire is used for wire-wrapped connections. Copper is the most commonly used wire. Minimum elongation of 15% is required for 24 through 32 gauge, 20% for larger wire sizes.

QUALITY ASSURANCE

■ There is a constant surveillance of manufacturing dimensions. Each wrapping bit is subjected to a series of "Qualification Tests." These consist of wrapping groups of wire on various types of test terminals. The wrapped wires are then subjected to a "Strip" test to determine adequate tightness. "Unwrap" tests are also performed to ensure against an "Overtight" wrap.

TYPES OF WRAP

■ A "Regular" bit wraps the bare wire around the terminal. A "Modified" bit wraps a portion of insulation around the terminal in addition to the bare wire. This greatly increases the ability to withstand vibration.

REGULAR WRAP

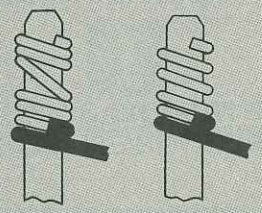
MODIFIED WRAP

Some Hints On Making ***WIRE-WRAPPED*** *Connections*

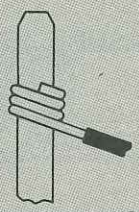
EASY DOES IT!
Don't press too hard. Let the OK tools do the work. Excessive pressure can lead to overwrapping.

OVERWRAP

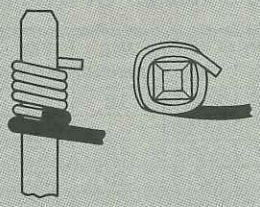
STAY WITH IT!
Just keep the OK tool on the terminal until the wrap is complete. Early removal can result in spiral and open wraps.


OPEN WRAP SPIRAL WRAP

FEED WIRE CORRECTLY!
It's easy to feed wire into the slot in the OK bit correctly. Be sure the stripped end of the wire is "pushed-in" all-the-way.


INSUFFICIENT TURNS

USE THE CORRECT BIT AND SLEEVE!
Wire-wrapping is a precision technique and the wrong bit and sleeve just can not do the job. So check the OK specification tables and use the right bit and sleeve. Improper selection can cause problems ranging from "Pigtails" to loose wraps.


PIGTAIL

"STRIP" FORCE CHART

WIRE SIZE			min. number of turns (Bare Wire)	min. strip force	
AWG	diam. inches	diam. mm		lbs.	gms
16	.051	1.30	4	15	6800
18	.0403	1.022	4	15	6800
20	.032	.813	5	8	3600
22	.0253	.643	5	8	3600
24	.0201	.51	6	7	3200
26	.0159	.404	7	6	2700
28	.0126	.32	7	5	2200
30	.0100	.254	7	3.3	1500

HOW TO SELECT WIRE-WRAPPING BITS AND SLEEVES

- DETERMINE WIRE GAUGE FROM ENGINEERING DRAWINGS AND SPECIFICATIONS.

A WIRE GAUGE

- DETERMINE FROM SPECIFICATIONS WHETHER "REGULAR" OR "MODIFIED" WRAP IS REQUIRED. IF NOT SPECIFIED, THE COMMON PRACTICE IS:

"REGULAR" WRAP 18 to 26 AWG — "MODIFIED WRAP" 26 to 32 AWG

B Reg. | Mod. — CHECK ONE

- IF "MODIFIED" WRAP IS REQUIRED, MEASURE THE INSULATION DIAMETER.

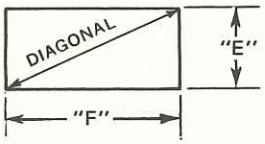
C INSULATION DIA.

- IF "REGULAR" WRAP IS REQUIRED, DETERMINE BARE WIRE DIAMETER FROM WIRE SIZE CHART BELOW.

D BARE WIRE DIA.

- DETERMINE TERMINAL DIAGONAL.

MEASURE "E" AND "F" DIMENSIONS AS PER DIAGRAM.



E "E" DIMENSION

F "F" DIMENSION

CONSULT TERMINAL DIAGONAL CHART BELOW FOR DIAGONAL VALUE.

G DIAGONAL

WIRE SIZE CHART

Bare Wire dia. Inches	MM	AWG (American)	SWG (British)
.0403	1,022	18	
.040	1,016		19
.036	0,914	19	20
.032	0,813	20	21
.028	0,711	21	22
.0253	0,643	22	
.024	0,61		23
.0226	0,574	23	
.022	0,559		24
.0201	0,51	24	
.020	0,508		25
.018	0,457		26
.0179	0,455	25	
.0164	0,417		27
.0159	0,404	26	
.0148	0,376		28
.0142	0,361	27	
.0136	0,345		29
.0126	0,320	28	
.0124	0,315		30
.0116	0,295		31
.0113	0,287	29	
.0108	0,274		32
.0100	0,254	30	33
.0092	0,234		34
.0089	0,226	31	
.0084	0,213		35
.008	0,203	32	

TERMINAL DIAGONAL CHART

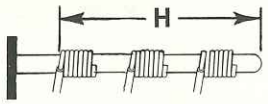
DIMENSION "E" \ DIMENSION "F"	.010	.015	.020	.025	.030	.035	.040	.045	.050	.055	.060	.065	.070	.075	.080	.085	.090	.095	.100
.010	.014	.018	.022	.027	.032	.036	.041	.046	.051	.056	.061	.066	.071	.076	.081	.086	.091	.096	.101
.015	.018	.021	.025	.029	.033	.038	.043	.047	.052	.057	.062	.067	.072	.077	.082	.087	.092	.097	.102
.020	.022	.025	.028	.032	.036	.040	.045	.049	.053	.058	.063	.068	.073	.078	.083	.088	.093	.098	.103
.025	.027	.029	.032	.035	.039	.043	.047	.050	.056	.060	.065	.069	.074	.079	.084	.089	.094	.099	.104
.030	.032	.033	.036	.039	.042	.046	.050	.054	.058	.062	.067	.071	.076	.080	.085	.090	.095	.100	.105
.035	.036	.038	.040	.043	.046	.049	.052	.056	.060	.064	.069	.073	.078	.082	.087	.091	.096	.101	.106
.040	.041	.043	.045	.047	.050	.052	.056	.060	.064	.068	.072	.076	.080	.084	.089	.092	.097	.102	.107
.045	.046	.047	.049	.050	.054	.056	.060	.063	.067	.071	.074	.078	.083	.087	.091	.096	.101	.105	.109
.050	.051	.052	.053	.056	.058	.060	.064	.067	.071	.074	.078	.082	.086	.090	.094	.098	.103	.107	.111

EXAMPLE

IF "E" = .020, "F" = .060, THE TERMINAL DIAGONAL IS .063 AS SHOWN ON CHART.

HOW TO SELECT WIRE-WRAPPING BITS AND SLEEVES

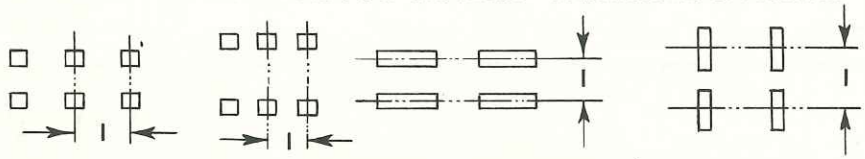
- DETERMINE TERMINAL HOLE DEPTH REQUIRED.



MEASURE DIMENSION "H"

H TER. HOLE DEPTH

- DETERMINE MINIMUM "CENTER-TO-CENTER" TERMINAL SPACING.



MEASURE DIMENSION "I"

I TERMINAL SPACING

- CALCULATE MAXIMUM PERMISSIBLE "EFFECTIVE RADIUS" "J".

FOR "MODIFIED" WRAP $J = I - C - \frac{1}{2}F$

FOR "REGULAR" WRAP $J = I - D - \frac{1}{2}F$

J MAX. EFF. RADIUS

- ENTER YOUR DATA IN SAMPLE BIT AND SLEEVE CHART BELOW.

WIRE GAUGE	REG.	MOD.	MAXIMUM INSUL. DIA.	MINIMUM TERMINAL DIAGONAL	MAXIMUM TERMINAL DIAGONAL	TERMINAL HOLE DEPTH	EFFECTIVE RADIUS	TERMINAL HOLE DIA.	COILTITE BIT PART NO.	COILTITE SLEEVE PART NO.	WIRE GAUGE
			*	**	**	***	****				
				—							
A	**B**		**C**		**G**	**H**	**J**				**A**

- TO SELECT PROPER BIT AND SLEEVE PROCEED LEFT TO RIGHT ACROSS COILTITE BIT AND SLEEVE CHART, SELECTING BITS AND SLEEVES WHICH FULLY MEET YOUR REQUIREMENTS.

*MAXIMUM INSULATION DIAMETER OF THE BIT MUST BE EQUAL TO OR LARGER THAN VALUE "C"

**TERMINAL DIAGONAL "G" MUST FALL BETWEEN MINIMUM AND MAXIMUM VALUES OF BIT

***TERMINAL HOLE DEPTH OF BIT MUST BE EQUAL TO OR LARGER THAN VALUE "H"

****EFFECTIVE RADIUS OF BIT AND SLEEVE MUST BE EQUAL TO OR SMALLER THAN VALUE "J"

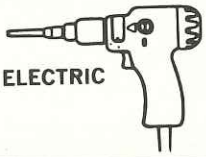
- IF MORE THAN ONE BIT AND SLEEVE COMBINATION RESULTS, SELECT THE BIT WITH THE SMALLEST TERMINAL HOLE DIAMETER. THIS ENSURES THE BEST POSSIBLE WRAP.

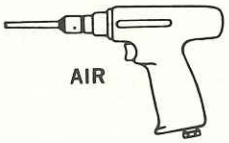
- THE COILTITE BIT AND SLEEVE CHART REFLECTS THE MOST COMMONLY USED PARTS. CONTACT O.K. MACHINE AND TOOL CORPORATION FOR ANY SPECIAL APPLICATIONS.

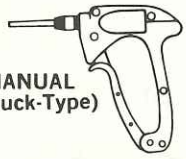
(AWG INCHES)

WIRE-WRAPPING BITS AND SLEEVES

FULLY COMPATIBLE WITH ANY MAKE OR MODEL WIRE-WRAPPING TOOL







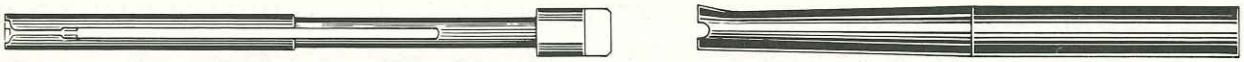
WIRE GAUGE (AWG)	REGULAR	MODIFIED	MAXIMUM INSULATION DIAMETER (inches) *	MINIMUM TERMINAL DIAGONAL (inches) **	MAXIMUM TERMINAL DIAGONAL (inches) **	TERMINAL HOLE DEPTH (inches) ***	EFFECTIVE RADIUS (inches) ****	TERMINAL HOLE DIAMETER (inches)	BIT PART NO.	SLEEVE PART NO.	WIRE GAUGE (AWG)	
18	•		—	.060	.073	1.000	.150	.075	KB18	P194	18	
19	•		—	.042	.073	1.000	.123	.075	KB1975	P2224	19	
19-20	•		—	.091	.122	1.000	.150	.125	KB1920LH	P212	19-20	
20		•	.059	.042	.073	1.000	.150	.075	WB20M	P194LN	20	
20-22	•		—	.042	.073	1.000	.123	.075	KB2075	P2224	20-22	
22	•		—	.098	.122	.625	.142	.125	KB22VLT	P212	22	
22		•	.058	.049	.073	1.000	.136	.075	WB22MLD	P212	22	
22	•		—	.061	.085	1.000	.125	.086	KB22LT	P2224	22	
22	•		—	.054	.073	.750	.117	.075	KB22	P2224	22	
22		•	.052	.049	.074	1.000	.132	.075	WB2275M	P2224	22	
22-24	•		—	.061	.085	1.000	.117	.086	KB224LH	P2224	22-24	
22-24	•		—	.054	.073	1.000	.111	.075	KB224-1	P2224	22-24	
22-24	•		—	.054	.073	.807	.111	.075	KB224	P2224	22-24	
24	•		—	.024	.043	1.000	.083	.044	KB2444	P3032LN	24	■
24	•		—	.055	.074	1.500	.100	.075	KB24DH	P2426	24	
24		•	.046	.054	.073	1.750	.117	.075	WB24DH	P2224	24	
24	•		—	.073	.092	.625	.124	.093	KB24SW	P2426	24	
24	•		—	.055	.074	.750	.100	.075	KB24	P2426	24	
24		•	.044	.024	.043	.750	.098	.044	WB24SM	P3032LN	24	■
24		•	.046	.054	.073	.750	.118	.075	WB24M	P2224	24	
24		•	.050	.049	.068	1.125	.118	.069	WB24DHM	P2224	24	
24-26	•		—	.058	.073	.750	.100	.075	OK2426	P2426	24-26	
24-26		•	.046	.054	.073	.750	.118	.075	WB2426M	P2224	24-26	
24-26	•		—	.054	.065	1.000	.098	.066	KB2466	OK8519	24-26	
26	•		—	.023	.038	.750	.068	.040	KB2639	P26LN	26	■
26	•		—	.058	.073	1.000	.100	.075	KB26	P2426	26	
26		•	.031	.023	.038	.750	.075	.040	WB26SM	P26LN	26	■
26		•	.046	.054	.073	1.000	.118	.075	WB26M	P2224	26	
26		•	.046	.024	.043	.750	.098	.044	WB2644M	P3032LN	26	■
26		•	.041	.053	.068	1.000	.109	.069	WB2669M	P2426	26	
26		•	.050	.053	.068	1.125	.118	.069	WB26MAZ	P2224	26	
28		•	.030	.031	.035	.750	.066	.036	WB-28SHM	P3032	28	■
28-29		•	.036	.033	.038	.750	.091	.040	WB2829M	P3032L	28-29	■
30		•	.027	.039	.042	.750	.071	.043	SB30M-B	P3032	30	
30		•	.027	.031	.035	.750	.064	.036	SB30MSH-B	P3032	30	■
30		•	.023	.031	.035	.750	.064	.036	SB30MMK	P3032	30	■
30		•	.023	.030	.035	.750	.061	.036	SB30MSW	P3032	30	■
30		•	.027	.060	.064	1.000	.107	.066	WB30MLD	P2426	30	
30		•	.027	.027	.030	.750	.066	.031	WB30SHM	P3032	30	
30-32	•		—	.034	.038	.750	.064	.040	KB3032	P3032	30-32	■
30-32		•	.027	.034	.038	.750	.064	.040	WB3032M	P3032	30-32	■
30-32		•	.029	.062	.065	.750	.100	.067	WB3032LM	OK8519	30-32	

* SEE PAGE 5

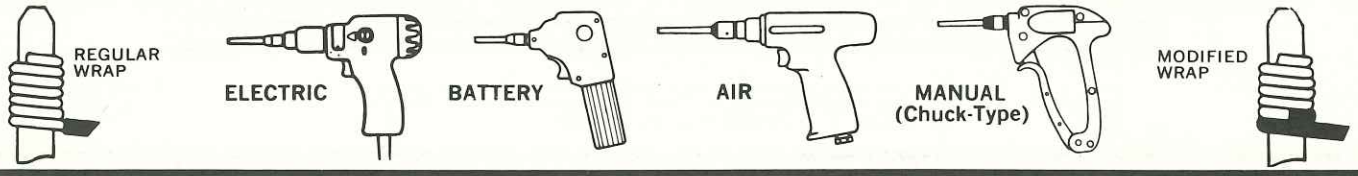
■ THESE TOOLS MAY BE USED FOR .025 SQUARE TERMINALS ON .100 CENTERS

(MILLIMETERS)

WIRE-WRAPPING BITS AND SLEEVES



FULLY COMPATIBLE WITH ANY MAKE OR MODEL WIRE-WRAPPING TOOL



WIRE SIZE (mm)	REGULAR	MODIFIED	MAXIMUM INSULATION DIAMETER (mm) *	MINIMUM TERMINAL DIAGONAL (mm) **	MAXIMUM TERMINAL DIAGONAL (mm) **	TERMINAL HOLE DEPTH (mm) ***	EFFECTIVE RADIUS (mm) ****	TERMINAL HOLE DIAMETER (mm)	BIT PART NO.	SLEEVE PART NO.	WIRE SIZE (mm)	
1,00	•		—	1,52	1,85	25,40	3,81	1,90	KB18	P194	1,00	
0,91	•		—	1,07	1,85	25,40	3,12	1,90	KB1975	P2224	0,91	
0,80-0,91	•		—	2,31	3,09	25,40	3,81	3,17	KB1920LH	P212	0,80-0,91	
0,80		•	1,50	1,07	1,85	25,40	3,81	1,90	WB20M	P194LN	0,80	
0,65-0,80	•		—	1,07	1,85	25,40	3,12	1,90	KB2075	P2224	0,65-0,80	
0,65	•		—	2,49	3,10	15,90	3,61	3,17	KB22VLT	P212	0,65	
0,65		•	1,47	1,24	1,85	25,40	3,45	1,90	WB22MLD	P212	0,65	
0,65	•		—	1,54	2,15	25,40	3,17	2,18	KB22LT	P2224	0,65	
0,65	•		—	1,37	1,85	19,05	2,97	1,90	KB22	P2224	0,65	
0,65		•	1,32	1,24	1,87	25,40	3,35	1,90	WB2275M	P2224	0,65	
0,50-0,65	•		—	1,54	2,15	25,40	2,97	2,18	KB224LH	P2224	0,50-0,65	
0,50-0,65	•		—	1,37	1,85	25,40	2,82	1,90	KB224-1	P2224	0,50-0,65	
0,50-0,65	•		—	1,37	1,85	20,50	2,82	1,90	KB224	P2224	0,50-0,65	
0,50	•		—	0,60	1,09	25,40	2,10	1,11	KB2444	P3032LN	0,50	■
0,50	•		—	1,39	1,87	38,10	2,54	1,90	KB24DH	P2426	0,50	
0,50		•	1,17	1,37	1,85	44,50	2,97	1,90	WB24DH	P2224	0,50	
0,50	•		—	1,85	2,33	15,80	3,14	2,38	KB24SW	P2426	0,50	
0,50	•		—	1,39	1,87	19,05	2,54	1,90	KB24	P2426	0,50	
0,50		•	1,11	0,60	1,09	19,05	2,48	1,11	WB24SM	P3032LN	0,50	■
0,50		•	1,17	1,37	1,85	19,05	2,99	1,90	WB24M	P2224	0,50	
0,50		•	1,27	1,24	1,72	28,50	2,99	1,75	WB24DHM	P2224	0,50	
0,40-0,50	•		—	1,47	1,85	19,05	2,54	1,90	OK2426	P2426	0,40-0,50	
0,40-0,50		•	1,17	1,37	1,85	19,05	2,99	1,90	WB2426M	P2224	0,40-0,50	
0,40-0,50	•		—	1,37	1,65	25,40	2,48	1,67	KB2466	OK8519	0,40-0,50	
0,40	•		—	0,58	0,96	19,05	1,72	1,02	KB2639	P26LN	0,40	■
0,40	•		—	1,47	1,85	25,40	2,54	1,90	KB26	P2426	0,40	
0,40		•	0,79	0,58	0,96	19,05	1,90	1,02	WB26SM	P26LN	0,40	■
0,40		•	1,17	1,37	1,85	25,40	2,99	1,90	WB26M	P2224	0,40	
0,40		•	1,17	0,60	1,09	19,05	2,48	1,11	WB2644M	P3032LN	0,40	■
0,40		•	1,04	1,34	1,72	25,40	2,77	1,75	WB2669M	P2426	0,40	
0,40		•	1,27	1,34	1,72	28,50	2,99	1,75	WB26MAZ	P2224	0,40	
0,32		•	0,76	0,79	0,89	19,05	1,67	0,91	WB-28SHM	P3032	0,32	■
0,29-0,32		•	0,91	0,83	0,96	19,05	2,31	1,02	WB2829M	P3032L	0,29-0,32	■
0,25		•	0,69	0,99	1,06	19,05	1,80	1,09	SB30M-B	P3032	0,25	
0,25		•	0,69	0,79	0,89	19,05	1,62	0,91	SB30MSH-B	P3032	0,25	■
0,25		•	0,58	0,79	0,89	19,05	1,62	0,91	SB30MMK	P3032	0,25	■
0,25		•	0,58	0,76	0,89	19,05	1,54	0,91	SB30MSW	P3032	0,25	■
0,25		•	0,69	1,52	1,62	25,40	2,71	1,67	WB30MLD	P2426	0,25	
0,25		•	0,69	0,69	0,76	19,05	1,67	0,79	WB30SHM	P3032	0,25	
0,20-0,25	•		—	0,86	0,96	19,05	1,62	1,02	KB3032	P3032	0,20-0,25	■
0,20-0,25		•	0,69	0,86	0,96	19,05	1,62	1,02	WB3032M	P3032	0,20-0,25	■
0,20-0,25		•	0,74	1,57	1,65	19,05	2,54	1,70	WB3032LM	OK8519	0,20-0,25	

* SEE PAGE 5

■ THESE TOOLS MAY BE USED FOR 0,63 MM SQUARE TERMINALS ON 2,54 MM CENTERS

(AWG INCHES)

WIRE-WRAPPING BITS AND SLEEVES

FULLY COMPATIBLE WITH ANY MAKE OR MODEL WIRE-WRAPPING TOOL

2″ LONGER THAN STANDARD BITS AND SLEEVES

These bits and sleeves are designed for wire-wrapping in areas requiring deep penetration. Their 5″ length ensures "TRUE" connections even in hard-to-get-at locations.

WIRE GAUGE (AWG)	REGULAR	MODIFIED	MAXIMUM INSULATION DIAMETER (inches) *	MINIMUM TERMINAL DIAGONAL (inches) **	MAXIMUM TERMINAL DIAGONAL (inches) **	TERMINAL HOLE DEPTH (inches) ***	EFFECTIVE RADIUS (inches) ****	TERMINAL HOLE DIAMETER (inches)	BIT PART NO.	SLEEVE PART NO.	WIRE GAUGE (AWG)
24	•		—	.055	.074	.750	.100	.075	KB24-5	P2426-5	24
26	•		—	.058	.073	.750	.100	.075	KB26-5	P2426-5	26

WRAP AND SOLDER BITS AND SLEEVES

ARE USED

- When only round terminals are available. (Standard wire-wrapping requires terminals with a minimum of two sharp edges.)
- When wire leads or terminals are too short to allow the required number of turns for an acceptable wrap. (For example — resistors, capacitors. . . .)

- For fast securing of component leads to terminals prior to soldering. (Instead of twisting leads around terminals by means of pliers.)

WIRE GAUGE (AWG)	REGULAR	MODIFIED	MAXIMUM INSULATION DIAMETER (inches) *	MINIMUM TERMINAL DIAGONAL (inches) **	MAXIMUM TERMINAL DIAGONAL (inches) **	TERMINAL HOLE DEPTH (inches) ***	EFFECTIVE RADIUS (inches) ****	TERMINAL HOLE DIAMETER (inches)	BIT PART NO.	SLEEVE PART NO.	WIRE GAUGE (AWG)
20-22	•		—	.108	.133	.280	.146	.140	WS2022	P212	20-22
24	•		—	.118	.137	.090	.134	.138	WS24	P194	24

BARE GROUND WIRE STRAPPING BITS AND SLEEVES

For use in all models of bare wire strapping tools. These precision bits and sleeves allow continuous wrapping and assure perfect "gas tight" connections every time.

WIRE GAUGE (AWG)	REGULAR	MODIFIED	MAXIMUM INSULATION DIAMETER (inches) *	MINIMUM TERMINAL DIAGONAL (inches) **	MAXIMUM TERMINAL DIAGONAL (inches) **	TERMINAL HOLE DEPTH (inches) ***	EFFECTIVE RADIUS (inches) ****	TERMINAL HOLE DIAMETER (inches)	BIT PART NO.	SLEEVE PART NO.	WIRE GAUGE (AWG)
22-24	•		—	.054	.073	.807	.111	.075	KB224GW	P2224	22-24
26	•		—	.058	.073	1.000	.100	.075	KB26GW	P2426	26
30	•		—	.034	.038	.750	.064	.040	KB3032GW	P3032GW	30

* SEE PAGE 5

(MILLIMETERS)

WIRE-WRAPPING BITS AND SLEEVES

FULLY COMPATIBLE WITH ANY MAKE OR MODEL WIRE-WRAPPING TOOL

5cm. LONGER THAN STANDARD BITS AND SLEEVES

These bits and sleeves are designed for wire-wrapping in areas requiring deep penetration. Their 12,7 cm length ensures "TRUE" connections even in hard-to-get-at locations.

WIRE SIZE (mm)	REGULAR	MODIFIED	MAXIMUM INSULATION DIAMETER (mm) *	MINIMUM TERMINAL DIAGONAL (mm) **	MAXIMUM TERMINAL DIAGONAL (mm) **	TERMINAL HOLE DEPTH (mm) ***	EFFECTIVE RADIUS (mm) ****	TERMINAL HOLE DIAMETER (mm)	BIT PART NO.	SLEEVE PART NO.	WIRE SIZE (mm)
0,50	•		—	1,39	1,87	19,05	2,54	1,90	KB24-5	P2426-5	0,50
0,40	•		—	1,47	1,85	19,05	2,54	1,90	KB26-5	P2426-5	0,40

WRAP AND SOLDER BITS AND SLEEVES

ARE USED

- When only round terminals are available. (Standard wire-wrapping requires terminals with a minimum of two sharp edges.)
- When wire leads or terminals are too short to allow the required number of turns for an acceptable wrap. (For example — resistors, capacitors. . . .)

- For fast securing of component leads to terminals prior to soldering. (Instead of twisting leads around terminals by means of pliers.

WIRE SIZE (mm)	REGULAR	MODIFIED	MAXIMUM INSULATION DIAMETER (mm) *	MINIMUM TERMINAL DIAGONAL (mm) **	MAXIMUM TERMINAL DIAGONAL (mm) **	TERMINAL HOLE DEPTH (mm) ***	EFFECTIVE RADIUS (mm) ****	TERMINAL HOLE DIAMETER (mm)	BIT PART NO.	SLEEVE PART NO.	WIRE SIZE (mm)
0,65-0,80	•		—	2,74	3,37	7,11	3,70	3,55	WS2022	P212	0,65-0,80
0,50	•		—	2,99	3,47	2,29	3,40	3,50	WS24	P194	0,50

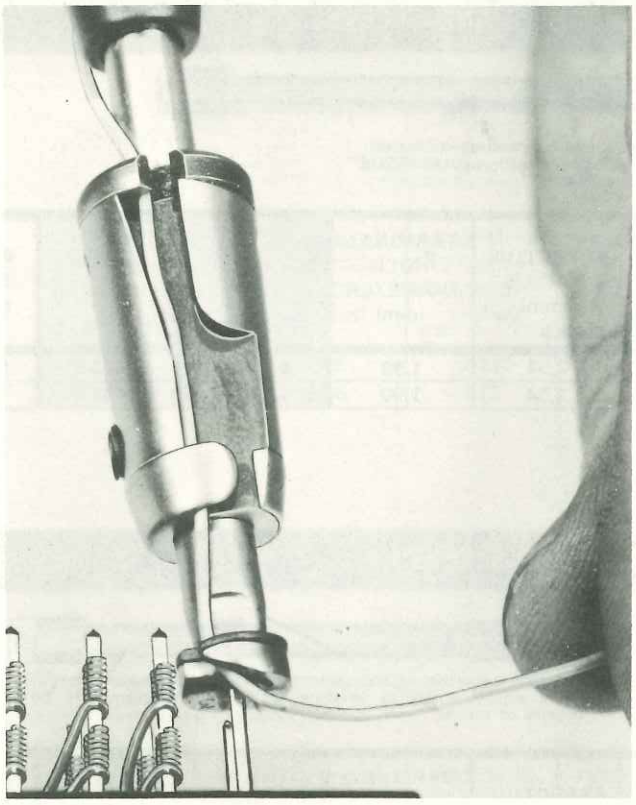
BARE GROUND WIRE STRAPPING BITS AND SLEEVES

For use in all models of bare wire strapping tools. These precision bits and sleeves allow continuous wrapping and assure perfect "gas tight" connections every time.

WIRE SIZE (mm)	REGULAR	MODIFIED	MAXIMUM INSULATION DIAMETER (mm) *	MINIMUM TERMINAL DIAGONAL (mm) **	MAXIMUM TERMINAL DIAGONAL (mm) **	TERMINAL HOLE DEPTH (mm) ***	EFFECTIVE RADIUS (mm) ****	TERMINAL HOLE DIAMETER (mm)	BIT PART NO.	SLEEVE PART NO.	WIRE SIZE (mm)
0,50-0,65	•		—	1,37	1,85	20,50	2,82	1,90	KB224GW	P2224	0,50-0,65
0,40	•		—	1,47	1,85	25,40	2,54	1,90	KB26GW	P2426	0,40
0,25	•		—	0,86	0,96	19,05	1,62	1,02	KB3032GW	P3032GW	0,25

* SEE PAGE 5

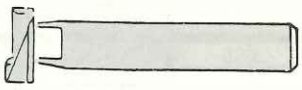
"CUT-STRIP & WRAP" TOOLS



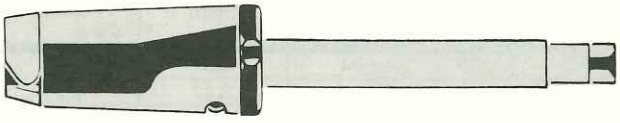
The OK **Cut-Strip & Wrap** bits offer the ultimate in wire-wrapping convenience and performance. With these tools wire may be wrapped directly from a reel or harness with no prior wire end preparation. The **Cut-Strip & Wrap** bits cut the wire, strip off the proper length of insulation and wrap the wire all in one easy operation.

All types of wire may not be compatible with the process of **Cut-Strip & Wrap** wire-wrapping. For best results:

- To strip a 2" length of insulation on a straight pull should not require more than 2¾ pounds (1200 grams).
- Wire must be free of all "kinks" or sharp bends.
- The wire-wrapping tool used in conjunction with the **CUT-STRIP & WRAP** bit should have high torque.



HEAD



HOLDER

"CUT-STRIP & WRAP" TOOLS

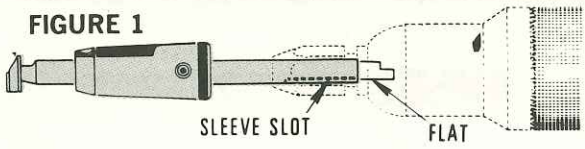
HOLDER	HEAD PART NUMBER	WIRE SIZE			TERMINAL HOLE DIAMETER		TERMINAL HOLE DEPTH		STRIP LENGTH		HEAD DIAMETER		MINIMUM TERMINAL SPACING	
		AWG	SWG	MM	INCHES	MM	INCHES	MM	INCHES	MM	INCHES	MM	INCHES	MM
CSWH-2	CSWB-1	24	25	0,5	.089	2,26	.87	22,1	2.00	50,8	.34	8,73	.25	6,3
CSWH-2	CSWB-2	22	23	0,6	.089	2,26	.87	22,1	2.00	50,8	.34	8,73	.25	6,3
CSWH-2	CSWB-3	24	25	0,5	.070	1,77	.56	14,2	1.75	44,9	.34	8,73	.25	6,3
CSWH-2	CSWB-4	24	25	0,5	.067	1,70	.25	6,3	1.44	36,6	.34	8,73	.25	6,3
CSWH-2	CSWB-5	24	25	0,5	.070	1,77	1.00	25,4	1.44	36,6	.34	8,73	.25	6,3
CSWH-2	CSWB-6	26	28	0.4	.089	2,26	.87	22,1	2.00	50,8	.34	8,73	.25	6,3
CSWH-3	CSWB-7	24	25	0,5	.070	1,77	1.00	25,4	1.44	36,6	.24	6,10	.156	3,9
CSWH-3	CSWB-8	22	23	0.6	.070	1,77	1.00	25,4	1.44	36,6	.24	6,10	.156	3,9
CSWH-3	CSWB-9	26	28	0,4	.070	1,77	1.00	25,4	1.44	36,6	.24	6,10	.156	3,9
CSWH-5	CSWB-11	30	30	0,25	.036	0,91	0.75	19,0	0.87	22,1	.15	3,86	.100	2,5

HOW TO USE THE "CUT-STRIP & WRAP" TOOL

TO MOUNT BIT INTO WIRE-WRAPPING TOOL:

Align the "flat" side of shaft with adapter "sleeve slot" and push bit into tool until fully seated. (See Fig. 1)

FIGURE 1



TO START WIRE-WRAPPING PROCEED AS FOLLOWS:

A. Whenever possible wrap from left to right.
B. Position supply roll on left of terminal block.
C. Grasp tool in right hand.
D. Pull wire from reel with left hand, hold free end under right index finger. (See Fig. 2)
E. Thread wire into bit from rear to front. (See Fig. 3)
F. Position bit on terminal.
G. Hold wire clear of spinning bit as shown in photograph on page 10
H. Pull trigger and first wrap is complete.

FIGURE 2

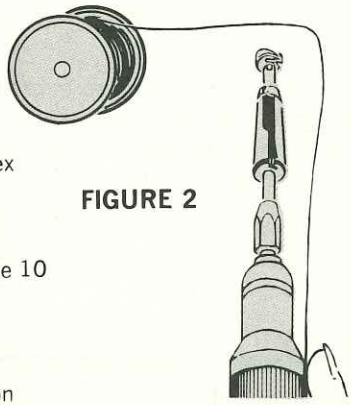
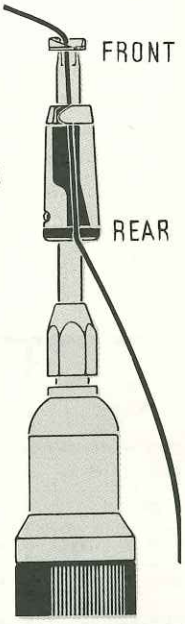


FIGURE 3

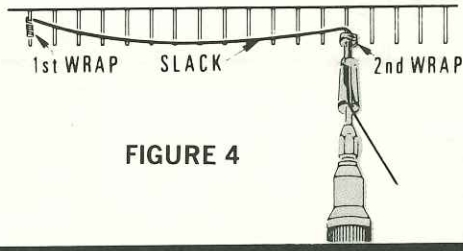


FOR SECOND WRAP:

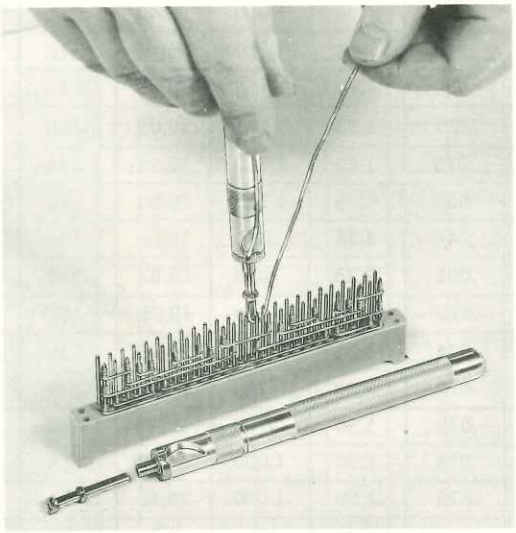
I. Place tool in left hand (this method preferred by production operators).
J. Guide wire under first terminal and anchor in front of bit leaving ample slack. (See Fig. 4)
K. Slip bit on terminal. (See Fig. 4)
L. Complete threading wire through bit front-to-back. (See Fig. 4)
M. Pull trigger and second wrap is complete.

NOTE: Practice will be required to perfect above technique.

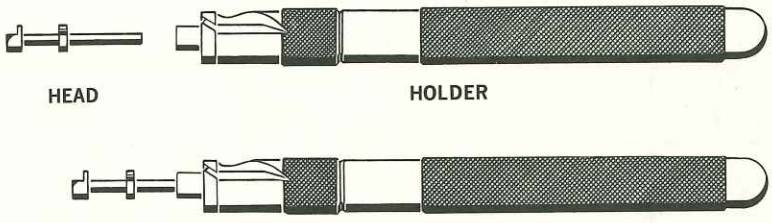
FIGURE 4



HAND-WRAPPING "CUT-STRIP & WRAP" TOOL



Now hand wire-wrapping can be done directly from reel or harness. The CSWH-4 handle in conjunction with a CSWB Bit, cuts the wire to length, strips off the proper amount of insulation, and wraps the wire around the terminal, all in one fast, simple operation. Ends the need for separate wire end preparation. Prevents wasting wire, eliminates wire length errors.



HOLDER PART NUMBER	HEAD PART NUMBER	WIRE SIZE AWG	SWG	MM	TERMINAL HOLE DIAMETER INCHES	MM	TERMINAL HOLE DEPTH INCHES	MM	STRIP LENGTH INCHES	MM	HEAD DIAMETER INCHES	MM	MINIMUM TERMINAL SPACING INCHES	MM
CSWH-4	CSWB-7	24	25	0,5	.070	1,77	1.00	25,4	1.44	36,6	.24	6,10	.156	3,9
CSWH-4	CSWB-8	22	23	0,6	.070	1,77	1.00	25,4	1.44	36,6	.24	6,10	.156	3,9
CSWH-4	CSWB-9	26	28	0,4	.070	1,77	1.00	25,4	1.44	36,6	.24	6,10	.156	3,9
CSWH-6	CSWB-11	30	33	0,25	.036	0,91	0.75	19,0	0.87	22,1	.15	3,86	.100	2,5

HAND WRAPPING TOOLS

PHOTO ACTUAL SIZE

TYPE "A"

TYPE "B"

These Hand Wrapping Tools are carefully designed to produce perfect wire-wrapped connections. Precision, long-lasting tools for use where occasional wraps are required or where power wire-wrapping tools are not practical. Compact and convenient. No special skill needed to produce dependable "gas-tight" connections.

PART NUMBER	Reg.	Mod.	TYPE	WIRE SIZE		MAX. INSULATION DIAMETER		TERMINAL HOLE DIAMETER		TERMINAL HOLE DEPTH		OUTSIDE DIAMETER		
				AWG	MM	INCHES	MM	INCHES	MM	INCHES	MM	INCHES	MM	
HW-18LH	•		A	18 ga.	1,02	—	—	.135	3,42	1.000	25,40	.312	7,92	
HW-18-19	•		A	18-19 ga.	1,020-0,950	—	—	.075	1,90	1.000	25,40	.250	6,35	
HW-19-20LH	•		A	20 ga.	0,813	—	—	.125	3,17	1.000	25,40	.250	6,35	
HW-20	•		A	20 ga.	0,813	—	—	.075	1,90	1.000	25,40	.218	5,53	
HW-22	•		A	22 ga.	0,643	—	—	.075	1,90	.750	19,05	.218	5,53	
HW-22VLT	•		A	22 ga.	0,643	—	—	.125	3,17	.625	15,87	.250	6,35	
HW-2275M		•	A	22 ga.	0,643	.052	1,32	.075	1,90	1.000	25,40	.218	5,53	
HW-224	•		A	22-24 ga.	0,643-0,510	—	—	.075	1,90	.807	20,50	.218	5,53	
HW-224-1	•		A	22-24 ga.	0,643-0,510	—	—	.075	1,90	1.000	25,40	.218	5,53	
HW-224LH	•		A	22-24 ga.	0,643-0,510	—	—	.086	2,18	1.000	25,40	.218	5,53	
HW-24	•		A	24 ga.	0,510	—	—	.075	1,90	.750	19,05	.218	5,53	
HW-24M		•	A	24 ga.	0,510	.046	1,17	.075	1,90	.750	19,05	.218	5,53	
HW-KB24DH	•		A	24 ga.	0,510	—	—	.075	1,90	1.500	38,10	.218	5,53	
HW-24DHM		•	A	24 ga.	0,510	.050	1,27	.069	1,75	1.125	28,50	.218	5,53	
HW-24-SM		•	A	24 ga.	0,510	.044	1,11	.044	1,11	.750	19,05	.156	3,96	*
HW-24-SW	•		A	24 ga.	0,510	—	—	.093	2,38	.625	15,87	.218	5,53	
HW-24-187	•		A	24 ga.	0,510	—	—	.075	1,90	.750	19,05	.187	4,74	
HW-2444	•		A	24 ga.	0,510	—	—	.044	1,11	1.000	25,40	.156	3,96	*
HW-2426	•		A	24-26 ga.	0,510-0,404	—	—	.075	1,90	.750	19,05	.218	5.53	
HW-2426M		•	A	24-26 ga.	0,510-0,404	.046	1,17	.075	1,90	.750	19,05	.218	5.53	
HW-26	•		A	26 ga.	0,404	—	—	.075	1,90	1.000	25,40	.218	5,53	
HW-26M		•	A	26 ga.	0,404	.046	1,17	.075	1,90	1.000	25,40	.218	5,53	
HW-26SM		•	A	26 ga.	0,404	.031	0,79	.040	1,02	.750	19,05	.125	3,17	*
HW-2669M		•	A	26 ga.	0,404	.041	1,04	.069	1,75	1.000	25,40	.218	5.53	
HW-2829M		•	A	28-29 ga.	0,320-0,287	.036	0,91	.040	1,02	.750	19,05	.156	3,96	*
HW-30		•	B	30 ga.	0,254	.027	0,69	.036	0,91	.750	19,05	.125	3,17	*
HW-30GSA		•	A	30 ga.	0,254	.027	0,69	.036	0,91	.750	19,05	.125	3,17	
HW-30MLD		•	A	30 ga.	0,254	.027	0,69	.066	1,67	1.000	25,40	.218	5.53	
HW-3032M		•	A	30 ga.	0,254	.027	0,69	.040	1,02	.750	19,05	.125	3,17	*
HW-30M-B		•	A	30 ga.	0,254	.027	0,69	.043	1,09	.750	19,05	.125	3,17	

*THESE TOOLS MAY BE USED FOR .025 SQUARE TERMINALS ON .100 CENTERS

HAND WRAPPING/UNWRAPPING TOOLS

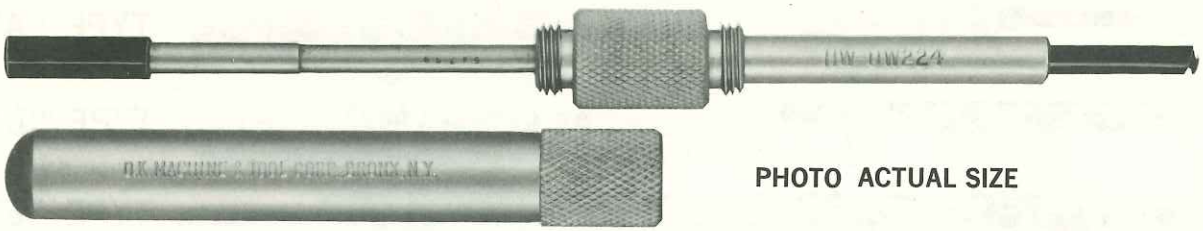


PHOTO ACTUAL SIZE

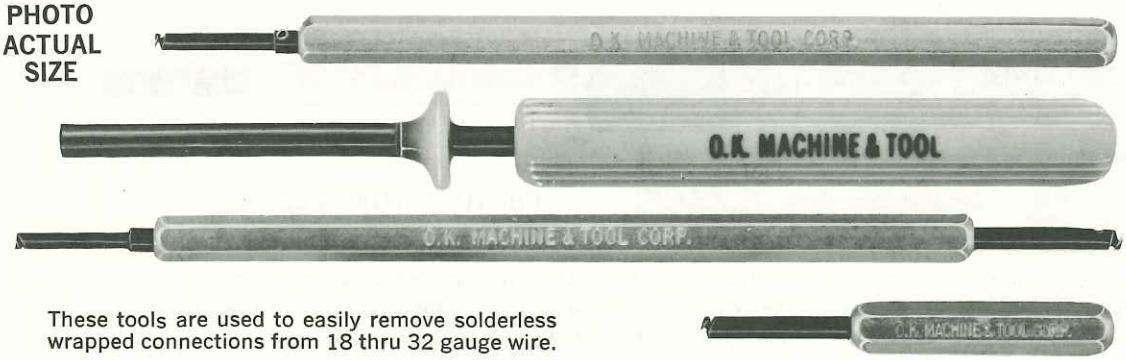
New convenience plus savings. One tool that does the job of two at less cost and with less weight. Quick, convenient and easy to use. While using one end, the other end is protected by a removable cap which serves as the handle. To switch from wire-wrapping to unwrapping takes only seconds — just a quick change of the cap from one end to the other. No more time wasted hunting for another tool, takes no more space than conventional single-function tools, and the passive end is always protected by the cap.

PART NUMBER	REG	MOD	WRAPPING SIDE WIRE SIZE AWG	WIRE SIZE MM	MAX. INSULATION DIAMETER INCHES	MM	TERMINAL HOLE DIAMETER INCHES	MM	TERMINAL HOLE DEPTH INCHES	MM	OUTSIDE DIAMETER INCHES	MM	UNWRAPPING SIDE WIRE SIZE AWG	WIRE SIZE MM	TERMINAL HOLE DIAMETER INCHES	MM	TERMINAL HOLE DEPTH INCHES	MM	OUTSIDE DIAMETER INCHES	MM	
HW-UW-18-19	•		18-19	1,020 0,950	—	—	.075	1,90	1.000		.250	6,35	18-19	1,020 0,950	.075	1,90	1.000	25,40	.187	4,74	
HW-UW-20	•		20	0,813	—	—	.075	1,90	1.000	25,40	.218	5,53	20-26	0,813 0,404	.070	1,77	1.000	25,40	.156	3,96	
HW-UW-22	•		22	0,643	—	—	.075	1,90	.750	19,05	.218	5,53	20-26	0,813 0,404	.070	1,77	1.000	25,40	.156	3.96	
HW-UW-2275M		•	22	0,643	.052	1,32	.075	1,90	1.000	25,40	.218	5,53	20-26	0,813 0,404	.070	1,77	1.000	25,40	.156	3,96	
HW-UW-224	•		22-24	0,643 0,510	—	—	.075	1,90	.807	20,50	.218	5,53	20-26	0,813 0,404	.070	1,77	1.000	25,40	.156	3,96	
HW-UW-224-1	•		22-24	0,643 0,510	—	—	.075	1,90	1.000	25,40	.218	5,53	20-26	0,813 0,404	.070	1,77	1.000	25,40	.156	3.96	
HW-UW-224LH	•		22-24	0,643 0,510	—	—	.086	2,18	1.000	25,40	.218	5,53	20-26	0,813 0,404	.086	2,18	.750	19.05	.156	3,96	
HW-UW-24	•		24	0,510	—	—	.075	1,90	.750	19,05	.218	5,53	20-26	0,813 0,404	.070	1,77	1.000	25,40	.156	3,96	
HW-UW-24M		•	24	0,510	.046	1,17	.075	1,90	.750	19,05	.218	5,53	20-26	0,813 0,404	.070	1,77	1.000	25,40	.156	3,96	
HW-UW-KB24DH	•		24	0,510	—	—	.075	1,90	1.500	38,10	.218	5,53	20-26	0,813 0,404	.070	1,77	1.000	25,40	.156	3,96	
HW-UW-24DHM		•	24	0,510	.050	1,27	.069	1,75	1.125	28,50	.218	5,53	20-26	0,813 0,404	.070	1,77	1.000	25,40	.156	3,96	
HW-UW-24SM		•	24	0,510	.044	1,11	.044	1,11	.750	19,05	.156	3,96	20-26	0,813 0,404	.038	0,96	1.000	25,40	.093	2,36	*
HW-UW-24-187	•		24	0,510	—	—	.075	1,90	.750	19,05	.187	4,74	20-26	0,813 0,404	.070	1,77	1.000	25,40	.156	3,96	
HW-UW-2444	•		24	0,510	—	—	.044	1,11	1.000	25,40	.156	3,96	20-26	0,813 0,404	.038	0,96	1.000	25,40	.093	2,36	*
HW-UW-2426	•		24-26	0,510 0,404	—	—	.075	1,90	.750	19,05	.218	5.53	20-26	0,813 0,404	.070	1,77	1.000	25.40	.156	3,96	
HW-UW-26	•		26	0,404	—	—	.075	1,90	1.000	25,40	.218	5.53	20-26	0,813 0,404	.070	1,77	1.000	25,40	.156	3,96	
HW-UW-26M		•	26	0,404	.046	1,17	.075	1,90	1.000	25,40	.218	5,53	20-26	0,813 0,404	.070	1,77	1.000	25,40	.156	3,96	
HW-UW-26SM		•	26	0,404	.031	0,79	.040	1,02	.750	19,05	.125	3,17	24-32	0,510 0,203	.038	0,96	1.000	25,40	.093	2,36	*
HW-UW-2829M		•	28-29	0,320 0,287	.036	0,91	.040	1,02	.750	19,05	.156	3,96	24-32	0,510 0,203	.038	0,96	1.000	25,40	.093	2.36	*
HW-UW-30		•	30	0,254	.027	0,69	.036	0,91	.750	19,05	.125	3,17	24-32	0,510 0,203	.038	0,96	1.000	25,40	093	2,36	*
HW-UW-30 MLD		•	30	0,254	.027	0.69	.066	1,67	1.000	25,40	.218	5,53	24-32	0,510 0,203	.070	1,77	1.000	25,40	.156	3,96	

*THESE TOOLS MAY BE USED FOR 0,63 MM SQUARE TERMINALS ON 2,54 MM CENTERS

HAND UNWRAPPING TOOLS

PHOTO ACTUAL SIZE



TYPE "A"

TYPE "D"

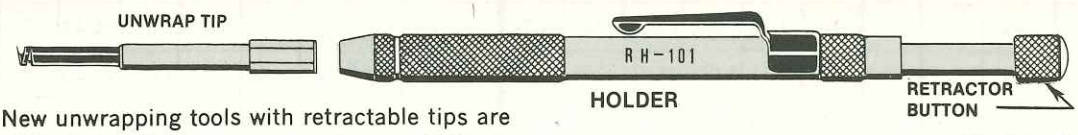
TYPE "E"

TYPE "B"

These tools are used to easily remove solderless wrapped connections from 18 thru 32 gauge wire.

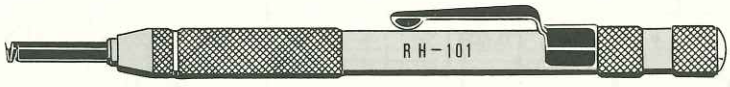
PART NUMBER	TYPE	WIRE SIZE AWG	WIRE SIZE MM	TYPE OF UNWRAP	TERMINAL HOLE DIAMETER INCHES	TERMINAL HOLE DIAMETER MM	TERMINAL HOLE DEPTH INCHES	TERMINAL HOLE DEPTH MM	OUTSIDE DIAMETER INCHES	OUTSIDE DIAMETER MM
UW-18-19	A	18-19	1,02 -0,950	LEFT HAND	.075	1,90	1.000	25,40	.187	4,74
UW-1	A	20-26	0,813-0,404	LEFT HAND	.070	1,77	1.000	25,40	.156	3,96
UW-1-L	A	20-26	0,813-0,404	RIGHT HAND	.070	1,77	1.000	25,40	.156	3,96
UW-2	E	20-26	0,813-0,404	LEFT AND RIGHT HAND	.070	1,77	1.000	25,40	.156	3,96
UW-4	D	20-26	0,813-0,404	LEFT HAND	.070	1,77	2.360	60,00	.187	4,74
UW-7	A	20-26	0,813-0,404	LEFT HAND	.086	2,18	.750	19,05	.156	3,96
UW-8	A	20-26	0,813-0,404	LEFT HAND	.070	1,77	1.500	38,10	.120	3,04
UW52-SE	A	20-26	0,813-0,404	LEFT HAND	.052	1,32	1.000	25,40	.120	3,04
UW52-L	E	20-26	0,813-0,404	LEFT AND RIGHT HAND	.052	1,32	1.000	25,40	.120	3,04
UW52-L-70-L	E	20-26 20-26	0,813-0,404 0,813-0,404	LEFT HAND	.052 .070	1,32 1,77	1.000 1.000	25,40 25,40	.120 .120	3,04 3,04
UW-120S	B	20-26	0,813-0,404	LEFT HAND	.070	1,77	1.000	25,40	.120	3,04
UW-120R	A	20-26	0,813-0,404	LEFT HAND	.070	1,77	1.000	25,40	.120	3,04
UW-156S	B	20-26	0,813-0,404	LEFT HAND	.070	1,77	1.000	25,40	.156	3,96
UWD-120-120	E	20-26	0,813-0,404	LEFT AND RIGHT HAND	.070	1,77	1.000	25,40	.120	3,04
UWD-93-120	E	24-32 20-26	0,510-0,203 0,813-0,404	LEFT HAND	.038 .070	0,96 1,77	1.000 1.000	25,40 25,40	.093 .120	2,36 3,04
UW-093S	B	24-32	0,510-0,203	LEFT HAND	.038	0,96	1.000	25,40	.093	2,36
UW-093R	A	24-32	0,510-0,203	LEFT HAND	.038	0,96	1.000	25,40	.093	2,36
UW-093-L	A	24-32	0,510-0,203	RIGHT HAND	.038	0,96	1.000	25,40	.093	2,36
UWD-93-93	E	24-32	0,510-0,203	LEFT AND RIGHT HAND	.038	0,96	1.000	25,40	.093	2,36
UW-2832C	D	28-32	0,320-0,203	LEFT AND RIGHT HAND	.038	0,96	.750	19,05	.156	3,96
UW-45-1	A	20-26	0,813-0,404	LEFT HAND	.045	1,14	1.000	25,40	.120	3,04

RETRACTABLE TIP UNWRAPPING TOOLS



New unwrapping tools with retractable tips are perfect for the serviceman. Foolproof Push-Pull retraction mechanism. Push and the tool is ready to use. Pull and the tip retracts into the handle, protecting itself from breakage and protecting you from injury. Tips are interchangeable for different wire and terminal sizes, and replaceable if broken.

Clips in your shirt pocket.



- REPLACEABLE TIPS
- INTERCHANGEABLE TIPS
- ELIMINATES BROKEN TIPS
- PREVENTS INJURY
- POCKET CLIP
- COMFORTABLE, CONVENIENT

HOLDER	UNWRAP TIP PART NUMBER	WIRE SIZE AWG	WIRE SIZE MM	TYPE OF UNWRAP	TERMINAL HOLE DIAMETER INCHES	TERMINAL HOLE DIAMETER MM	TERMINAL HOLE DEPTH INCHES	TERMINAL HOLE DEPTH MM	OUTSIDE DIAMETER INCHES	OUTSIDE DIAMETER MM
RH-101	RUW-1	20-26 ga.	0,80-0,40	LEFT HAND	.070	1,77	1.000	25,40	.156	3,96
RH-101	RUW-4	24-32 ga.	0,50-0,20	LEFT HAND	.038	0,96	1.000	25,40	.093	2,36
RH-101	RUW-7	20-26 ga.	0,80-0,40	LEFT HAND	.086	2,18	.750	19,50	.156	3,96

MANUAL WIRE UNWRAPPING TOOL

Here is the team that gives you fast and easy removal of wire-wrapped solderless electrical connections. The combination of the G100/R3394 unwrap tool and the SU unwrap bits gives you the best tool for high speed wire unwrapping. High production, long life, low maintenance.

Designed for either production line or field use. It is extremely fast, just one squeeze of the handle does the job. Use Unwrap Bit SU2026 for wire AWG 20 thru 26 (.813 thru .404 mm.) and Bit SU2832 for wire AWG 28 thru 32 (.320 thru .203 mm.).

Each Bit must be used with the corresponding sleeve.

PART NUMBER UNWRAP BIT	PART NUMBER UNWRAP SLEEVE	SET NUMBER	WIRE SIZE AWG	WIRE SIZE MM	TERMINAL HOLE DIAMETER INCHES	TERMINAL HOLE DIAMETER MM
2026-UB	2032	SU-2026	22-26 ga.	0,65-0,40	.070	1,77
2832-UB	2032	SU -2832	26-32 ga.	0,40 -0,20	.038	0,96

ELECTRIC WRAP/UNWRAP TOOL — BITS AND SLEEVES

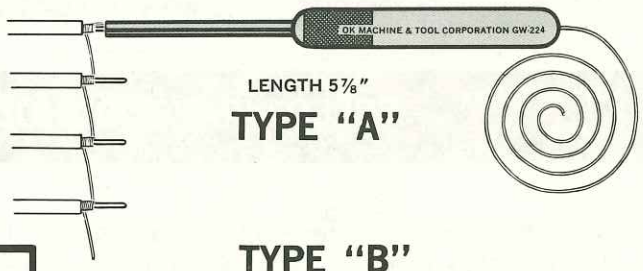
For 48VDC only
(SEE PAGE 17)
FOR SPECIFICATIONS

Model EW-7D-48-U Electric wire-wrapping tool (48VDC) is REVERSIBLE. A flick of the switch converts it to an unwrapping tool. As a wrapping tool it accepts all bits and sleeves for 22-30 AWG. For unwrapping use bits and sleeves below.

PART NUMBER UNWRAP BIT	PART NUMBER UNWRAP SLEEVE	SET NUMBERS	WIRE SIZE AWG	WIRE SIZE MM	TERMINAL HOLE DIAMETER INCHES	TERMINAL HOLE DIAMETER MM
2026-UB	SOK-2230	PUW-2226	22-26 ga.	0,65-0,40	.070	1,77
2832-UB	SOK-2230	PUW-2830	26-32 ga.	0,40-0,20	.038	0,96

BARE GROUND WIRE STRAPPING TOOL

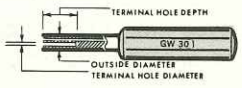
Makes true continuous wire-wrapped connections. Designed to take the guess work out of Bare Ground Wire Strapping. Carefully balanced for easy operation. The wire feeds continuously from your reel through the tool for as many wraps as you require. You can be sure of uniform connections of "gas tight" quality.



LENGTH 5⅞"

TYPE "A"

TYPE "B"



LENGTH 2¼"

PART NUMBER	TYPE	WIRE SIZE AWG	WIRE SIZE MM	TERMINAL HOLE DIAMETER INCHES	TERMINAL HOLE DIAMETER MM	TERMINAL HOLE DEPTH INCHES	TERMINAL HOLE DEPTH MM	OUTSIDE DIAMETER INCHES	OUTSIDE DIAMETER MM
GW-224	A	22-24	0,643-0,510	.075	1,90	.800	20,32	.218	5,53
GW-26	A	26	0,404	.075	1,90	1.000	25,40	.218	5,53
GW-30	B	30	0,254	.036	0,91	.750	19,05	.125	3,17

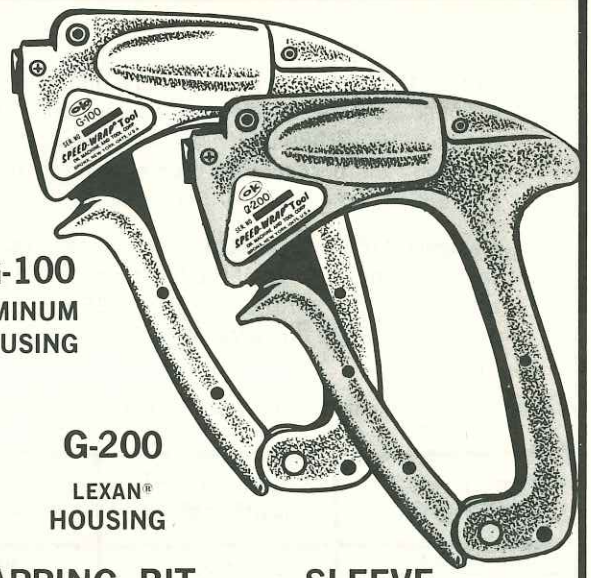
SPEED-WRAP® MANUAL WIRE-WRAPPING TOOL

MANUAL WIRE-WRAPPING TOOL

The G-100 and G-200 Speed-Wrap tools are designed to produce wire-wrapped connections by merely squeezing the trigger. Each squeeze of the trigger provides ten revolutions of the bit. Fewer wraps can be achieved by adjusting the "strip" length of the wire. The hardened steel working parts ensure long life and trouble free service.

WRAPPING BITS AND SLEEVES
TO USE WITH THESE TOOLS

Wire Size (AWG)	(mm)	Sleeve P/N	WIRE-WRAPPING Bit P/N
22 & 24 ga	.65-.50 mm	S224	KB224
22 ga	.65 mm	S22	KB22
24 ga	.50 mm	S24	KB24
26 ga	.40 mm	S26	KB26

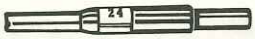


G-100
ALUMINUM HOUSING

G-200
LEXAN® HOUSING

WRAPPING BIT

SLEEVE



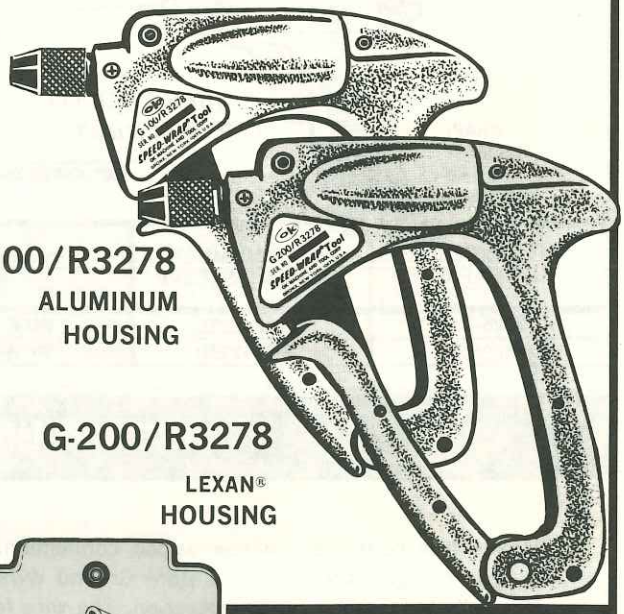
MANUAL WIRE-WRAPPING TOOL
CHUCK TYPE

The G-100/R3278 and G-200/R3278 Speed-Wrap tools are designed with a chuck nose piece to make use of the full line of bits and sleeves made for power tools. These tools accommodate wire sizes from AWG22 (0,65mm) thru AWG32 (0,20mm) and can provide a maximum of ten turns. Fewer wraps can be achieved by adjusting the "strip" length of the wire. For production and field service use in the electronic, telecommunications, and appliance industries.

When wire-wrapping on .025 (0,63mm) x .025 (0,63mm) posts use maximum "strip length" of 7/8" (22,22mm).

SEE CHARTS ON PAGES 6 AND 7 FOR PROPER SLEEVES AND BITS TO USE WITH THESE TOOLS

® LEXAN IS A REGISTERED TRADE MARK OF GENERAL ELECTRIC CO.



G-100/R3278
ALUMINUM HOUSING

G-200/R3278
LEXAN® HOUSING

SPEED-WRAP TOOL HOLSTER

Model H-250 Holster is made of high quality harness leather for years of good service. Specially designed to hold G-100, G-200, G-100/R3278 and G-200/R3278 wire-wrapping tools, plus an ST-100 type wire cut-strip tool and a UW type unwrap tool. Convenience, security, protection. Slotted for easy attachment to your belt.

SPEED-WRAP TOOL HOLSTER H-250

SPEED-WRAP® ELECTRIC POWERED WIRE-WRAPPING TOOLS

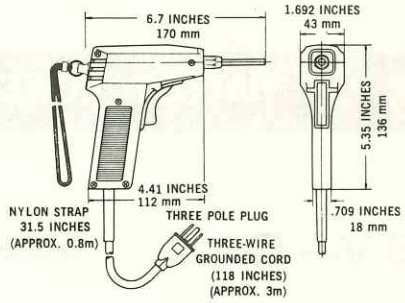
EW-7D

The Model EW-7D, with its specially formulated reinforced plastic housing, is an attractive, lightweight, and easy-to-use tool. Its rugged motor is designed for high production, long life and low maintenance.

The tool is also available incorporating a "Back Force" device to prevent over-wrapping which might otherwise occur because of operator technique.

Each tool is equipped with a nylon neck harness which prevents the tool from being dropped, and frees both hands when the tool is not being used. These tools are equipped with 9 foot (3 meters) grounded 3 wire cords and plugs.

MODEL	INPUT VOLTAGE	INPUT CURRENT	BACK FORCE	SPECIFICATIONS
EW-7D	110 50/60Hz	50 MA	NO	SPEED APPROX. 3,300 RPM
EW-7DBF	110 50/60Hz	50 MA	YES	
EW-7D-24	24 50/60Hz	200 MA	NO	
EW-7D-24BF	24 50/60Hz	200 MA	YES	
EW-7D-42	42 VDC	130 MA	NO	WEIGHT 12.7 ounces 360 grams
EW-7D-42A	42 50/60Hz	130 MA	NO	
EW-7D-48	48 VDC	100 MA	NO	
EW-7D-48BF	48 VDC	100 MA	YES	WIRE SIZE AWG22 thru AWG 32 0,65mm thru 0,20mm
EW-7D-48-P[2]	48 VDC	100 MA	NO	
EW-7D-48U[3]	48 VDC	100 MA	NO	
EW-7D-48A	48 50/60Hz	100 MA	NO	
EW-7D-220	220 50/60Hz	25 MA	NO	
EW-7D-220BF	220 50/60Hz	25 MA	YES	
EW-7D-240	240 50/60Hz	25 MA	NO	
EW-7D-240BF	240 50/60Hz	25 MA	YES	



1 ANY MODEL MAY BE HAD WITH BACKFORCE ON SPECIAL ORDER — SPECIFY SUFFIX "BF".
2 SEE PAGE 18.
3 REVERSIBLE — MAY BE CONVERTED FROM A WRAPPING TO AN UNWRAPPING TOOL.

WIRE CUT AND STRIP ATTACHMENT MODEL STE-7

Model STE-7 is a lightweight, precision device which clips easily to all Models EW-7D without tools. Cuts and strips from reel or harness without nicking the wire.

Strip length easily adjustable to meet your requirements. For Kynar and all PVC type insulations.

MODEL	WIRE SIZE AWG	WIRE SIZE MM	REPLACEMENT BLADE NUMBER
STE-7-22	22 ga.	0,643	STE-7-22B
STE-7-24	24 ga.	0,510	STE-7-24B
STE-7-224	22-24 ga.	0,643-0,510	STE-7-224B
STE-7-26	26 ga.	0,404	STE-7-26B
STE-7-28	28 ga.	0,320	STE-7-28B
STE-7-30	30 ga.	0,254	STE-7-30B

MODEL STE-7
CUT AND STRIP
ATTACHMENT

FITS MODEL EW-7D,
IN ALL OF ITS VARIATIONS

SPEED-WRAP® ELECTRIC POWERED WIRE-WRAPPING TOOL

EW-7D-48-P*

FOR THE TELEPHONE INDUSTRY

48 VOLT D.C. WITH PHONE PLUG**

Model EW-7D-48-P is designed to satisfy the needs of the telephone industry. The phone plug allows the tool to operate from the power jacks available **in the racks!** Eliminates all the problems of battery tools at less cost. Each tool is equipped with a nylon neck harness which prevents the tool from being dropped, and frees both hands when not in use. Equipped with a 9 foot (3 meters) cord and two pole phone plug.

*FOR SPECIFICATIONS SEE PAGE 17.

**ALSO AVAILABLE WITH ALLIGATOR CLIPS.
SPECIFY MODEL EW-7D-48-C

BATTERY POWERED WIRE-WRAPPING TOOL

BW-515

Model BW-515 is a battery operated wire-wrapping tool, also available in reversible models for wrapping and unwrapping operations. The rechargeable nickel cadmium battery is self contained in the handle of the tool. Exceptionally useful for installation and field service work, or small production jobs. Available with "Backforce" device to prevent overwrapping.

Uses all 24AWG thru 32AWG wrapping bits shown on pages 6 & 7

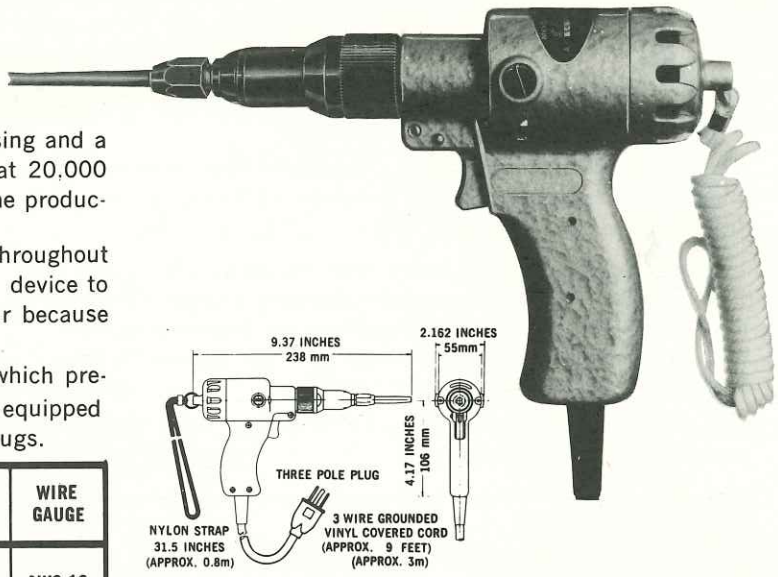
Unwrapping bits shown on page 15

BATTERY CHARGER **MODEL BC-1-115** (115 Volts A.C.)
BATTERY CHARGER **MODEL BC-1-230** (230 Volts A.C.)
REPLACEMENT BATTERIES **RB-20** (2 PER TOOL)

MODEL	BACK FORCE	WRAPPING	UNWRAPPING	SPEED	WEIGHT WITH BATTERIES	WIRE SIZE
BW-515	NO	YES	NO	(APPROX.) 3,000 RPM	16 oz. 454 gr.	AWG 24 thru AWG 32 0,5mm thru 0,2mm
BW-515-BF	YES		NO			
BW-515-U	NO		YES			
BW-515-BF-U	YES		YES			

SPEED-WRAP® ELECTRIC POWERED WIRE-WRAPPING TOOLS

EW-1B



The Model EW-1B features a rugged all metal housing and a dynamically balanced commutator motor running at 20,000 rpm. This tool is designed to meet the most extreme production demands.

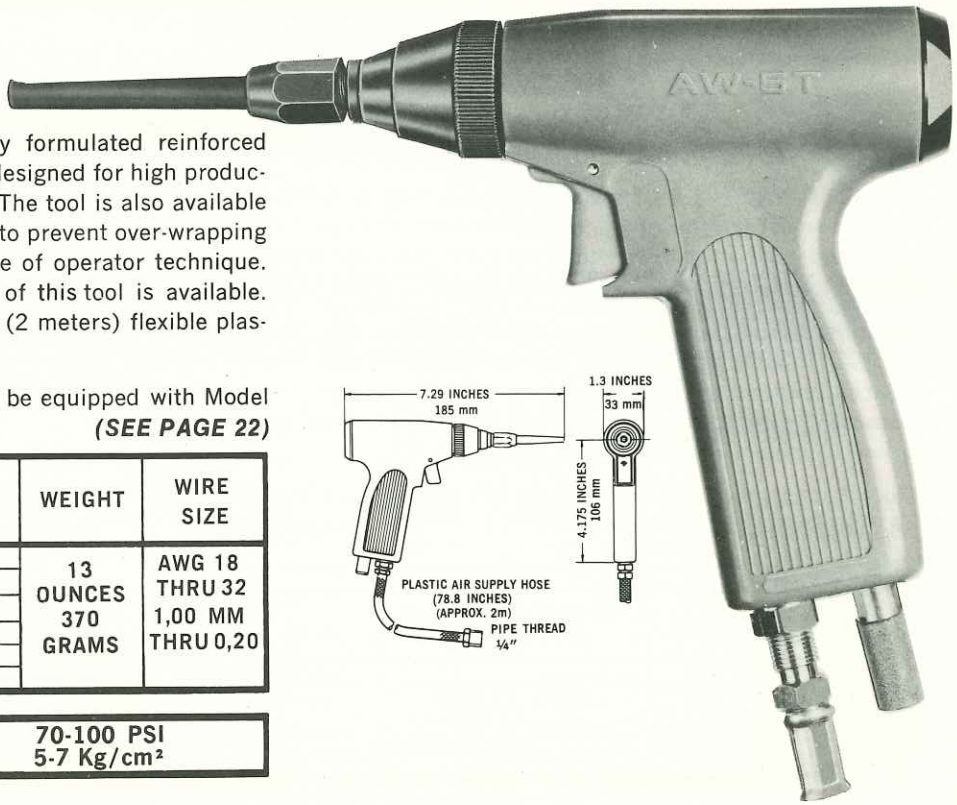
Indexing location may be easily reset anywhere throughout 360°. Also available incorporating a "Back Force" device to prevent over-wrapping which might otherwise occur because of operator technique.

Each tool is equipped with a nylon neck harness which prevents the tool from being dropped. These tools are equipped with 9 foot (3 meters) grounded 3 wire cords and plugs.

MODEL	INPUT VOLTAGE	INPUT CURRENT	BACK FORCE	SPEED	WEIGHT	WIRE GAUGE
EW-1B	110 50/60Hz	.5 amps	NO	4,000 RPM	24.8 oz. 700 grams	AWG 18 thru AWG 32 1,0 mm thru 0,20 mm
EW-1B-BF	110 50/60Hz	.5 amps	YES			
EW-1B-220	220 50/60Hz	.25 amps	NO			
EW-1B -220-BF	220 50/60Hz	.25 amps	YES			
EW-1B-42	42 50/60Hz	1,0 amps	NO			
EW-1B-48	48 50/60Hz	1,0 amps	NO			

SPEED-WRAP® AIR-POWERED WIRE-WRAPPING TOOLS

AW-5T



The Model AW-5T, with its specially formulated reinforced plastic housing, is a lightweight tool designed for high production, long life, and low maintenance. The tool is also available incorporating a "Back Force" device to prevent over-wrapping which might otherwise occur because of operator technique. A High Speed (4500 RPM) version of this tool is available. These tools are equipped with 6 foot (2 meters) flexible plastic air hoses.

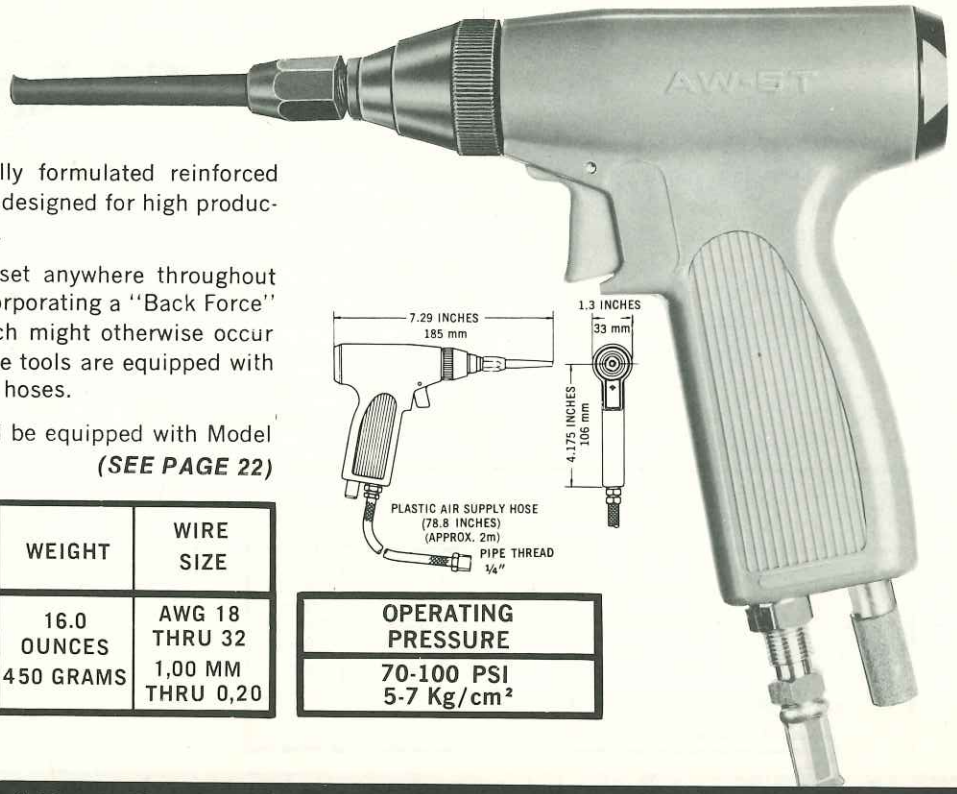
The air supply for these tools should be equipped with Model LRF528 Air Regulating System. *(SEE PAGE 22)*

MODEL	BACK FORCE	SPEED	WEIGHT	WIRE SIZE
AW-5T	NO	3000 RPM	13 OUNCES 370 GRAMS	AWG 18 THRU 32 1,00 MM THRU 0,20
AW-5T-BF	YES	3000 RPM		
AW-5T-H	NO	4500 RPM		
AW-5T-BF-H	YES	4500 RPM		

OPERATING PRESSURE	70-100 PSI 5-7 Kg/cm²

SPEED-WRAP® AIR-POWERED WIRE-WRAPPING TOOLS

AW-5TS



The Model AW-5TS, with its specially formulated reinforced plastic housing, is a lightweight tool designed for high production, long life, and low maintenance.

Indexing location may be easily reset anywhere throughout 360°. The tool is also available incorporating a "Back Force" device to prevent over-wrapping which might otherwise occur because of operator technique. These tools are equipped with 6 foot (2 meters) flexible plastic air hoses.

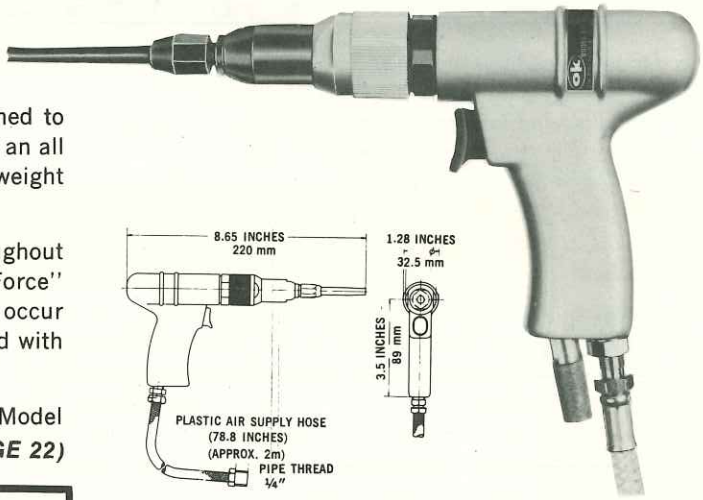
The air supply for these tools should be equipped with Model LRF528 Air Regulating System. *(SEE PAGE 22)*

MODEL	BACK FORCE	SPEED	WEIGHT	WIRE SIZE
AW-5TS	NO	APPROX. 4000 RPM	16.0 OUNCES 450 GRAMS	AWG 18 THRU 32 1,00 MM THRU 0,20
AW-5TS-BF	YES			

OPERATING PRESSURE
70-100 PSI 5-7 Kg/cm²

SPEED-WRAP® AIR-POWERED WIRE-WRAPPING TOOLS

AW-6T



The Model AW-6T is a compact, heavy duty tool designed to meet the most extreme production demands. It employs an all metal body and a rugged air turbine motor, yet is lightweight and comfortable to use.

Indexing location may be easily reset anywhere throughout 360°. The tool is also available incorporating a "Back Force" device to prevent over-wrapping which might otherwise occur because of operator technique. These tools are equipped with 6 foot (2 meters) flexible plastic air hoses.

The air supply for these tools should be equipped with Model LRF528 Air Regulating System. *(SEE PAGE 22)*

MODEL	BACK FORCE	SPEED	WEIGHT	WIRE SIZE
AW-6T	NO	APPROX. 3000 RPM	19.5 OUNCES 550 GRAMS	AWG 18 THRU 32 1,00 MM THRU 0,20
AW-6T-BF	YES			
AW-6T-H	NO	APPROX. 4500 RPM		
AW-6T-BF-H	YES			

OPERATING PRESSURE
70-100 PSI 5-7 Kg/cm²

SPEED-WRAP® AIR-POWERED WIRE-WRAPPING TOOLS

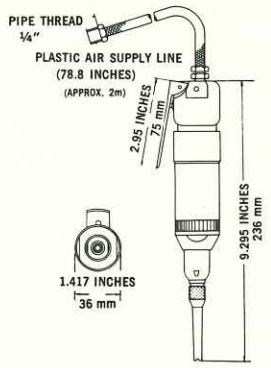
The Model AW-9T is a compact, heavy duty vertical wire-wrapping tool. It is especially useful for horizontally positioned wire-wrapping work. In such installations the tool should be used with Model 20 Tool Balancer. The quiet air turbine motor used in this tool makes it ideal for use on assembly lines where low noise level is required for operator efficiency.

Indexing location may be easily reset anywhere throughout 360°. The tool is also available incorporating a "Back Force" device to prevent over-wrapping which might otherwise occur because of operator technique. These tools are equipped with 6 foot (2 meters) flexible plastic air hoses.

The air supply for these tools should be equipped with Model LRF528 Air Regulating System. ***(SEE PAGE 22)***

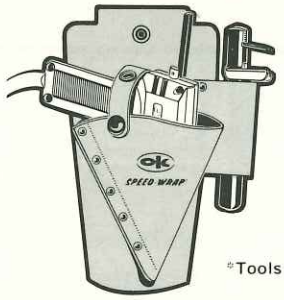
MODEL	BACK FORCE	SPEED	WEIGHT	WIRE SIZE
AW-9T	NO	APPROX. 3000 RPM	19.5 OUNCES 550 GRAMS	AWG 18 THRU 32 1,00 MM THRU 0,20
AW-9T-BF	YES			

AW-9T



OPERATING PRESSURE
70-100 PSI 5-7 Kg/cm²

HOLSTER FOR MODEL EW-7D



MODEL H-350

*Tools shown in Holster for illustration only.

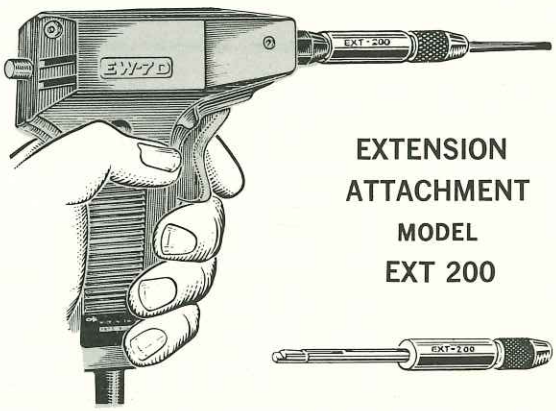
Model H-350 Holster is made of high quality harness leather for years of good service. Specially designed to hold the EW-7D electric wire-wrapping tool (any model) plus an ST-100 type wire cut-strip tool and a UW type unwrap tool. Convenience, security, protection. Slotted for easy attachment to your belt.

WIRE-WRAPPING EXTENSION ATTACHMENTS

EXTENSION ATTACHMENT

Precision devices which attach easily to your wire-wrapping tool for applications requiring extra "reach". Simply install the extension into the tool, then install the bit and sleeve into the extension. Fits all Electric, Pneumatic and Manual wire-wrapping tools. Compatible with all bits and sleeves made for Power Wire-Wrapping Tools.

MODEL	EXTENSION	
	Inches	MM
EXT 200	2.0	50
EXT 300	3.0	75
EXT 400	4.0	100



EXTENSION ATTACHMENT MODEL EXT 200

PNEUMATIC WIRE WRAPPING TOOL ACCESSORIES

AIR REGULATING SYSTEM MODEL LRF528

All air powered wire-wrapping tools require an air supply that is properly lubricated, regulated and filtered. O.K. Model LRF528 is a precision system in one compact unit. For use with O.K. Speed-Wrap Tools AW-5T, AW-6T and AW-9T as well as all other pneumatic tools.

AIR REGULATING SYSTEM MODEL NO. LRF528

5½" wide (139,7 mm)
6¼" high (158,8mm)
3¼" deep (82,6mm)

Weight:
15.3 oz.
(430 grams)

TOOL BALANCER

The Model-20 Tool Balancer provides optimum performance for tools up to 2½ pounds. The 3 inch diameter, steel reinforced aluminum drum is hand windable. Push-button tension release. Large cable opening protected by hardened chromed cable guide. Non-fatiguing 285 lbs. test nylon cable 10 feet long. Cable stop easily adjustable. For use with O.K. Speed-Wrap Tool AW-9T as well as other tools.

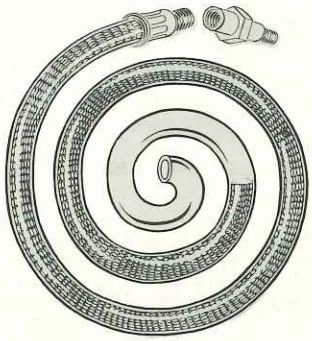
TOOL BALANCER MODEL -20

Diameter: 3" (76,20mm)
Weight: 9 oz. (.289 kgm.)

MH-1 MUFFLER HOSE FOR AW-5T

MH-2 MUFFLER HOSE FOR AW-6T

This plastic hose type muffler decreases exhaust noise and deflects exhaust away from the work area. Both are important for operator efficiency. This muffler will reduce turbine speed by approximately 400 rpm.



MUFFLER HOSE

3 ft. long (914,4mm)
½" O.D. (12,7 mm)

Weight:
2.7 oz.
(76 grams)

OK PNEUMATIC TOOL LUBRICANT PTL-1

O.K. Pneumatic Tool Lubricant PTL-1 is specifically designed for your pneumatic tool lubrication needs. Use in Air Regulating System Model LFR528 or your present system for lubrication of all air powered tools. Available in handy one-pint cans (minimum order: 4 pints).

PNEUMATIC TOOL LUBRICANT PTL-1

3⅞" wide (98,4 mm)
6³⁄₁₆" high (160,3 mm)
1¾" deep (44,45 mm)

Weight:
19.5 oz.
(550 grams)

PRE-STRIPPED WIRE-WRAPPING WIRE

★ CUT TO LENGTH ★ BOTH ENDS STRIPPED ★

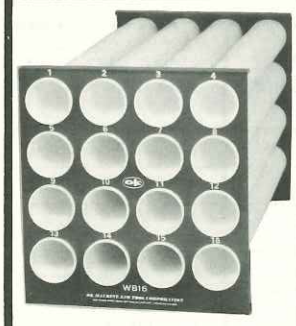
"L"

LENGTH "L" INCH	LENGTH "L" MM	AWG 30 (0.25MM) KYNAR® WIRE INSULATION DIAMETER .0195 INCH (0.50MM) STRIP-OFF LENGTH BOTH ENDS 1 INCH (25MM) 500 WIRES PER PACKAGE BLUE PART NO.	WHITE PART NO.	YELLOW PART NO.	AWG 28 (0.32MM) KYNAR® WIRE INSULATION DIAMETER .023 INCH (0.59MM) STRIP-OFF LENGTH BOTH ENDS 1 INCH (25MM) 500 WIRES PER PACKAGE BLUE PART NO.	WHITE PART NO.	YELLOW PART NO.	AWG 26 (0.40MM) KYNAR® WIRE INSULATION DIAMETER .027 INCH (0.69MM) STRIP-OFF LENGTH BOTH ENDS 1 INCH (25MM) 500 WIRES PER PACKAGE BLUE PART NO.	WHITE PART NO.	YELLOW PART NO.	AWG 26 (0.40MM) KYNAR WIRE INSULATION DIAMETER .027 INCH (.069MM) STRIP-OFF LENGTH BOTH ENDS 1 13/16 INCH(46.2MM) 500 WIRES PER PACKAGE BLUE PART NO.	WHITE PART NO.	YELLOW PART NO.
1	25	30B-010	30W-010	30Y-010	28B-010	28W-010	28Y-010	26B-010	26W-010	26Y-010	26XB-010	26XW-010	26XY-010
1.5	38	30B-015	30W-015	30Y-015	28B-015	28W-015	28Y-015	26B-015	26W-015	26Y-015	26XB-015	26XW-015	26XY-015
2	51	30B-020	30W-020	30Y-020	28B-020	28W-020	28Y-020	26B-020	26W-020	26Y-020	26XB-020	26XW-020	26XY-020
2.5	63	30B-025	30W-025	30Y-025	28B-025	28W-025	28Y-025	26B-025	26W-025	26Y-025	26XB-025	26XW-025	26XY-025
3	76	30B-030	30W-030	30Y-030	28B-030	28W-030	28Y-030	26B-030	26W-030	26Y-030	26XB-030	26XW-030	26XY-030
3.5	89	30B-035	30W-035	30Y-035	28B-035	28W-035	28Y-035	26B-035	26W-035	26Y-035	26XB-035	26XW-035	26XY-035
4	101	30B-040	30W-040	30Y-040	28B-040	28W-040	28Y-040	26B-040	26W-040	26Y-040	26XB-040	26XW-040	26XY-040
4.5	114	30B-045	30W-045	30Y-045	28B-045	28W-045	28Y-045	26B-045	26W-045	26Y-045	26XB-045	26XW-045	26XY-045
5	127	30B-050	30W-050	30Y-050	28B-050	28W-050	28Y-050	26B-050	26W-050	26Y-050	26XB-050	26XW-050	26XY-050
6	152	30B-060	30W-060	30Y-060	28B-060	28W-060	28Y-060	26B-060	26W-060	26Y-060	26XB-060	26XW-060	26XY-060
7	178	30B-070	30W-070	30Y-070	28B-070	28W-070	28Y-070	26B-070	26W-070	26Y-070	26XB-070	26XW-070	26XY-070
8	203	30B-080	30W-080	30Y-080	28B-080	28W-080	28Y-080	26B-080	26W-080	26Y-080	26XB-080	26XW-080	26XY-080
9	228	30B-090	30W-090	30Y-090	28B-090	28W-090	28Y-090	26B-090	26W-090	26Y-090	26XB-090	26XW-090	26XY-090
10	254	30B-100	30W-100	30Y-100	28B-100	28W-100	28Y-100	26B-100	26W-100	26Y-100	26XB-100	26XW-100	26XY-100
100 ft.roll (30.4m)		R30B-0100	R30W-0100	R30Y-0100	R28B-0100	R28W-0100	R28Y-0100	R26B-0100	R26W-0100	R26Y-0100			
500 ft.roll (152.0m)		R30B-0500	R30W-0500	R30Y-0500	R28B-0500	R28W-0500	R28Y-0500	R26B-0500	R26W-0500	R26Y-0500	← ROLL SIZE		
1000 ft.roll (304.0m)		R30B-1000	R30W-1000	R30Y-1000	R28B-1000	R28W-1000	R28Y-1000	R26B-1000	R26W-1000	R26Y-1000			

AWG 24 (0.50MM) KYNAR® WIRE
INSULATION DIAMETER .042 INCH (1.07MM)
STRIP-OFF LENGTH BOTH ENDS
1 7/16 INCH (36.5MM) 500 WIRES PER PACKAGE

LENGTH "L" INCH	LENGTH "L" MM	WHITE PART NO.
1	25	24W-010
1.5	38	24W-015
2	51	24W-020
2.5	63	24W-025
3	76	24W-030
3.5	89	24W-035
4	101	24W-040
4.5	114	24W-045
5	127	24W-050
6	152	24W-060
7	178	24W-070
8	203	24W-080
9	228	24W-090
10	254	24W-100
100 ft.roll (30.4m)		R24W-0100
500 ft.roll (152.0m)		R24W-0500
1000 ft.roll (304.0m)		R24W-1000

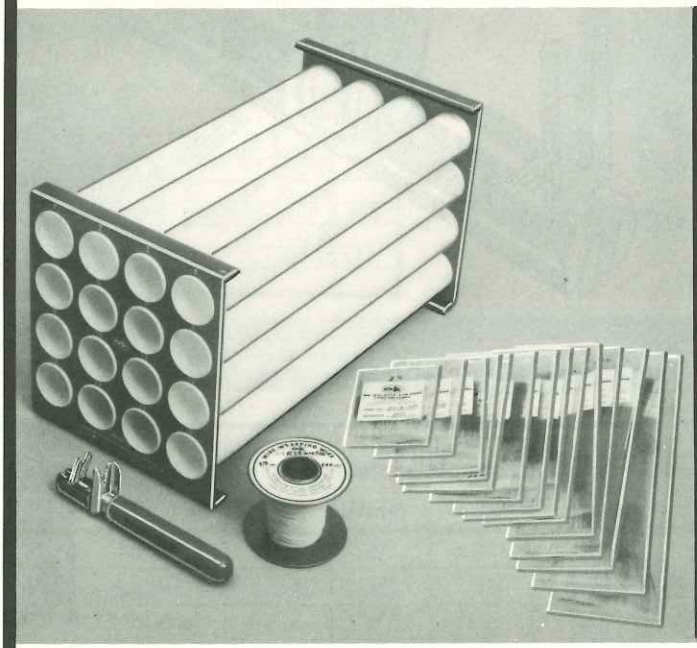
WB-16 WIRE BIN



- 16 WIRE TUBES
- EASY TO ADJUST THE DEPTH OF WIRE TUBES.
- MODULAR DESIGN PERMITS STACKING OF UNITS.
- 7¾" HIGH 7¼" WIDE 14" DEEP—TUBES $1\frac{3}{8}$" INSIDE DIAMETER.

WK-30 PRE-STRIPPED WIRE-WRAPPING WIRE KITS

The WK-30 Wire Wrapping Wire Kits contain a WB-16 Wire Bin, assorted lengths of 30 gauge pre-cut and pre-stripped wire, one roll of wire and one ST-100-30 cut and strip tool.



WIRE TABLE

AWG 30 (0.25MM) KYNAR WIRE
INSULATION DIAMETER .0195 INCH (0.50MM)
STRIP-OFF LENGTH BOTH ENDS 1 INCH (25MM)

WIRES PER PACKAGE	LENGTH "L" INCH	LENGTH "L" MM
500	1	25
500	1.5	38
500	2	51
500	2.5	63
500	3	76
500	3.5	89
500	4	101
500	4.5	114
500	5	127
500	6	152
500	7	178
500	8	203
500	9	228
500	10	254

INSULATED WIRE 500 ft. roll (152.0m)

KIT NUMBER	WIRE COLOR	WIRE BIN	CUT-STRIP TOOL	WIRE
WK-30B	BLUE	WB-16	ST-100-30	SEE WIRE TABLE ABOVE
WK-30Y	YELLOW	WB-16	ST-100-30	
WK-30W	WHITE	WB-16	ST-100-30	

WIRE CUT-AND-STRIP TOOLS

MODEL ST-100

A revolutionary new concept for easy and clean stripping of wires for wire-wrapping, electronic and appliance applications. Bio-mechanically designed for maximum efficiency. Its slim design makes it ideal for storing in belt holster or tool kit.

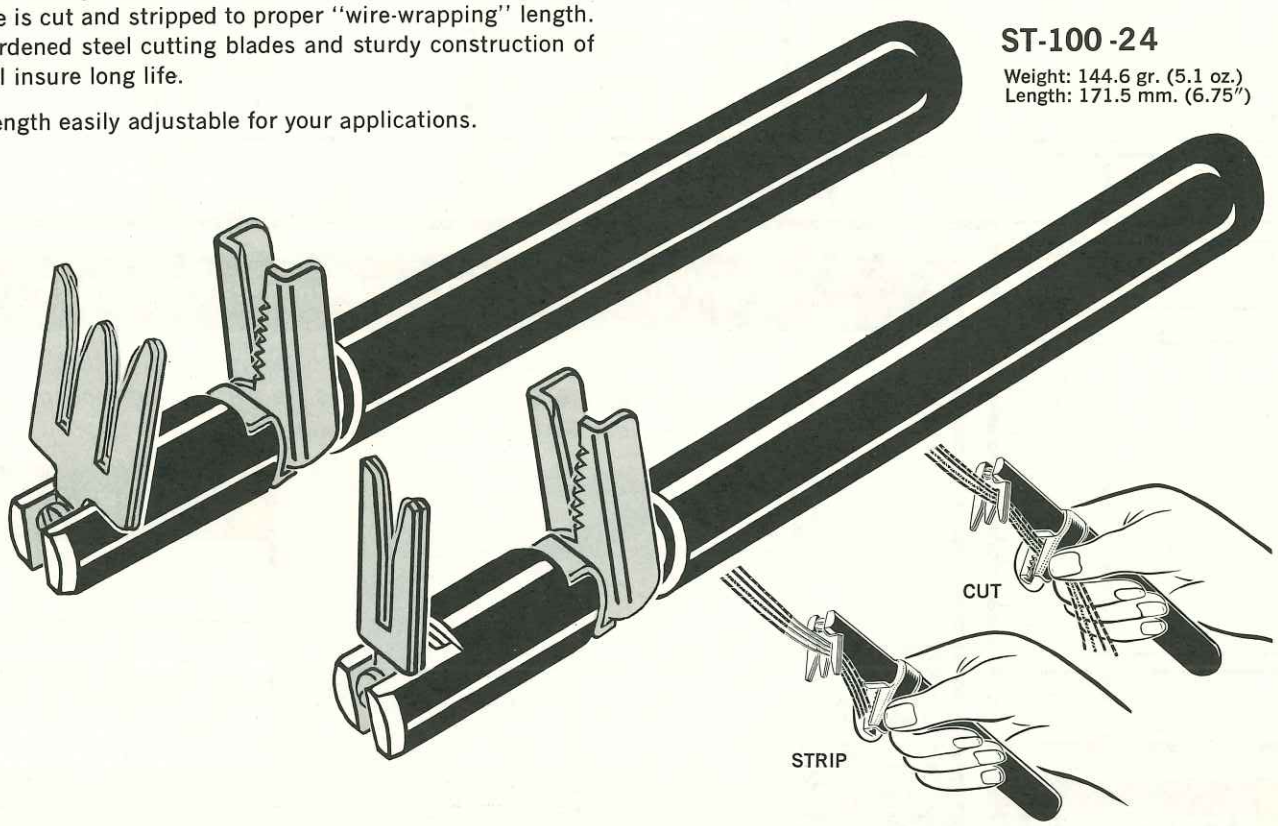
Easy to operate . . . place wires (up to 4) in stripping slot with ends extending beyond cutter blades . . . press tool and pull . . . wire is cut and stripped to proper "wire-wrapping" length. The hardened steel cutting blades and sturdy construction of the tool insure long life.

Strip length easily adjustable for your applications.

ST-100

ST-100-24

Weight: 144.6 gr. (5.1 oz.)
Length: 171.5 mm. (6.75")

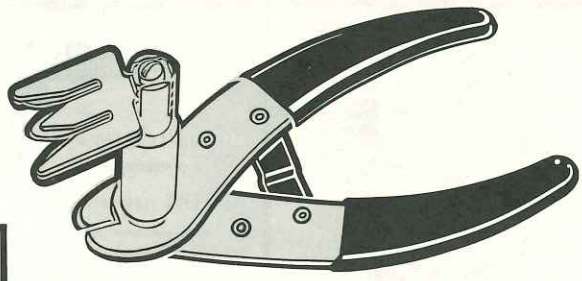


MODEL NUMBER	WIRE SIZE		ADJUSTABLE "SHINER" LENGTH OF STRIPPED WIRE FROM		TO		TYPE OF BLADE	REPLACEMENT BLADE NUMBERS	REPLACEMENT BLADE SUPPORT NUMBERS
	AWG	MM	INCHES	MM	INCHES	MM			
ST-100-20	20 ga.	0,80	1⅜₆"	33,33	1⅝₆"	42,86	SINGLE	OK-3907-20B	OK-3907-BS-1920
ST-100-22	22 ga.	0,65	1⅜₆"	33,33	1⅝₆"	39,68	SINGLE	OK-3907-22B	OK-3907-BS-2030
ST-100	22-24 ga.	0,65-0,50	1⅜₆"	33,33	1⅝₆"	39,68	DOUBLE	OK-3907-B	OK-3907-BS-224
ST-100-24	24 ga.	0,50	1⅜₆"	33,33	1⅝₆"	39,68	SINGLE	OK-3907-24B	OK-3907-BS-2030
ST-100-24-875	24 ga.	0,50	⅞"	22,22	1⅛"	28,57	SINGLE	OK-3907-24B	OK-3907-BS-2030
ST-100-26	26 ga.	0,40	1⅜₆"	33,33	1⅝₆"	42,86	SINGLE	OK-3907-26B	OK-3907-BS-2030
ST-100-26SP	26 ga.	0,40	1½"	38,10	2"	50,80	SINGLE	OK-3907-26B	OK-3907-BS-2030
ST-100-26-875	26 ga.	0,40	⅞"	22,22	1⅛"	28,57	SINGLE	OK-3907-26B	OK-3907-BS-2030
ST-100-28	28 ga.	0,32	⅞"	22,22	1⅛"	28,57	SINGLE	OK-3907-28B	OK-3907-BS-2030
ST-100-30	30 ga.	0,25	⅞"	22,22	1⅛"	28,57	SINGLE	OK-3907-30B	OK-3907-BS-2030
ST-100-30SP	30 ga.	0,25	1⅜₆"	33,33	1⅝₆"	39,68	SINGLE	OK-3907-30B	OK-3907-BS-2030

■ The above list of Cut and Strip tools are not applicable for Mylene or Teflon insulation.

WIRE CUT-AND-STRIP TOOLS

Easy to operate . . . place wires in the stripping slot with the end between the cutting blades. Squeeze tool and pull . . . wire is cut and stripped to proper "wire-wrapping" length. The plastic grips and a soft rubber sleeve assure maximum handling comfort and slip-free gripping. Stripping blades are easily replaceable. The tool is cadmium plated, rust resistant finish.



No. O.K. 3907
Weight: 112 gr. (4 oz.)
Length: 127 mm. (5")

TOOL NUMBER	WIRE SIZE AWG	WIRE SIZE MM	"SHINER" LENGTH OF STRIPPED WIRE INCHES	"SHINER" LENGTH OF STRIPPED WIRE MM
OK-3907-20	20 ga.	0,80	1½" to 1¾"	38,10 to 44,45
OK-3907-22	22 ga.	0,65	1½" to 1¾"	38,10 to 44,45
OK-3907	22 & 24 ga.	0,65-0,50	1½" to 1¾"	38,10 to 44,45
OK-3907-24	24 ga.	0,50	1½" to 1¾"	38,10 to 44,45
OK-3907-26	26 ga.	0,40	1½" to 1¾"	38,10 to 44,45
OK-3907-26SP	26 ga.	0,40	2"	50,80
OK-3907-28	28 ga.	0,32	⅞ to 1⅛"	22,22 to 28,57
OK-3907-30	30 ga.	0,25	⅞ to 1⅛"	22,22 to 28,57

These tools are not applicable for Mylene or Teflon insulation.

REPLACEMENT BLADES FOR ST-100 & OK 3907 TOOLS

Replacement blades are interchangeable between ST-100 and OK 3907 wire-stripping tools. These fine blades are made from specially tempered spring steel. The stripping slot is carefully centered within the blade to ensure clean no nick stripping.

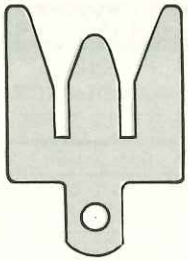
BLADE NUMBER	USE WITH	
OK-3907-20B	OK-3907-20	ST-100-20
OK-3907-22B	OK-3907-22	ST-100-22
OK-3907-B	OK-3907	ST-100
OK-3907-24B	OK-3907-24	ST-100-24
OK-3907-26B	OK-3907-26	ST-100-26
OK-3907-26B	OK-3907-26 SP	ST-100-26 SP & 875
OK-3907-28B	OK-3907-28	ST-100-28
OK-3907-30B	OK-3907-30	ST-100-30 & SP

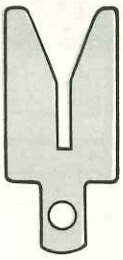
No. OK-3907-B **No. OK-3907-24B**

BLADE SUPPORT REPLACEMENTS FOR ST-100 & OK 3907 TOOLS

The replacement blade support sections are made of heat treated plated steel. They are designed to accurately center the slots of the stripping blade, making possible clean, nick-free wire stripping. Easy replacement.

BLADE SUPPORT NUMBER	USE WITH	
OK-3907-BS-224	OK-3907	ST-100
OK-3907-BS-1920	OK-3907-20	ST-100-20
OK-3907-BS-2030	OK-3907-22	ST-100-22
	OK-3907-24	ST-100-24
	OK-3907-26	ST-100-26
	OK-3907-26 SP	ST-100-26 SP
		ST-100-26-875
	OK-3907-28	ST-100-28
	OK-3907-30	ST-100-30
		ST-100-30 SP



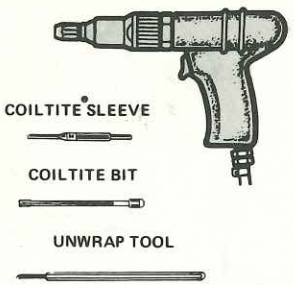


OK-3907-BS-224 **OK-3907-BS-2030**

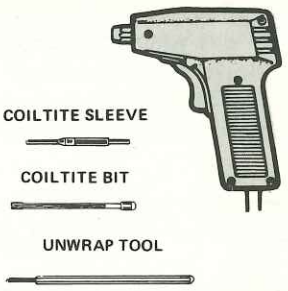
WIRE-WRAPPING KITS

MODEL WWK

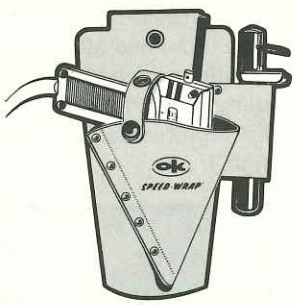
MODEL PK



MODEL GR



MODEL KGR



MODEL WWK — MANUAL WIRE-WRAPPING KITS WITH HOLSTER

PART NUMBER	REG.	MOD.	WIRE SIZE AWG	TERMINAL HOLE DIAMETER X HOLE DEPTH	WIRE WRAPPING TOOL	COILTITE BIT	COILTITE SLEEVE	UNWRAP TOOL	WIRE CUT-STRIP TOOL	HOLSTER	
224WWK	•		22-24 ga.	.075 X .807	G100	KB224	S224	UW-1	ST-100	H-250	
224WWK-P	•		22-24 ga.	.075 X .807	G100/R3278	KB224	P2224	UW-1	ST-100	H-250	
26WWK	•		26 ga.	.075 X 1.000	G100/R3278	KB26	P2426	UW-1	ST-100-26	H-250	
30WWK		•	30 ga.	.036 X .750	G100/R3278	SB30MSH-B	P3032	UW-093R	ST-100-30	H-250	

MODEL PK — AIR POWERED WIRE-WRAPPING KITS

PART NUMBER	REG.	MOD.	WIRE SIZE AWG	TERMINAL HOLE DIAMETER X HOLE DEPTH	WIRE WRAPPING TOOL	COILTITE BIT	COILTITE SLEEVE	UNWRAP TOOL			
T-26-PK	•		26 ga.	.075 X 1.000	AW-6T-BF*	KB26	P2426	UW-1			
T-28-PK		•	28 ga.	.036 X .750	AW-6T-BF*	WB28SHM	P3032	UW-093R			
T-30-PK		•	30 ga.	.036 X .750	AW-6T-BF*	SB30MSH-B	P3032	UW-093R			

MODEL GR — ELECTRIC POWERED WIRE-WRAPPING KITS

PART NUMBER	REG.	MOD.	WIRE SIZE AWG	TERMINAL HOLE DIAMETER X HOLE DEPTH	WIRE WRAPPING TOOL	COILTITE BIT	COILTITE SLEEVE	UNWRAP TOOL			INPUT VOLTAGE
224-GR-NEC	•		22-24 ga.	.075 X .807	EW-7D-48-P	KB224	P2224	UW-1			48VDC
224-GR	•		22-24 ga.	.075 X .807	EW-7D	KB224	P2224	UW-1			110VAC
224-GR-220	•		22-24 ga.	.075 X .807	EW-7D-220	KB224	P2224	UW-1			220VAC
26-L-GR	•		26 ga.	.075 X 1.000	EW-7D	KB26	P2426	UW-1			110VAC
26-L-GR-220	•		26 ga.	.075 X 1.000	EW-7D-220	KB26	P2426	UW-1			220VAC
26-GR		•	26 ga.	.040 X .750	EW-7D-BF*	WB26SM	P26LN	UW-093R			110VAC
26-GR-220		•	26 ga.	.040 X .750	EW-7D-BF-220*	WB26SM	P26LN	UW-093R			220VAC
28-GR		•	28 ga.	.036 X .750	EW-7D-BF*	WB28SHM	P3032	UW-093R			110VAC
28-GR-220		•	28 ga.	.036 X .750	EW-7D-BF-220*	WB28SHM	P3032	UW-093R			220VAC
30-GR		•	30 ga.	.036 X .750	EW-7D-BF*	SB30MSH-B	P3032	UW-093R			110VAC
30-GR-220		•	30 ga.	.036 X .750	EW-7D-BF-220*	SB30MSH-B	P3032	UW-093R			220VAC

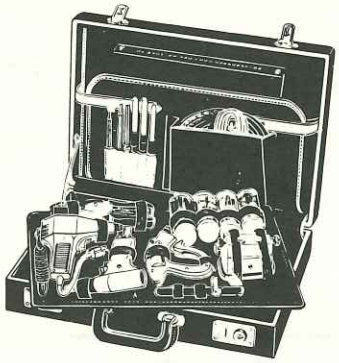
MODEL KGR — ELECTRIC POWERED WIRE-WRAPPING KITS WITH HOLSTER

PART NUMBER	REG.	MOD.	WIRE SIZE AWG	TERMINAL HOLE DIAMETER X HOLE DEPTH	WIRE WRAPPING TOOL	COILTITE BIT	COILTITE SLEEVE	UNWRAP TOOL	WIRE CUT-STRIP TOOL	HOLSTER	INPUT VOLTAGE
224-KGR	•		22-24 ga.	.075 X .807	EW-7D	KB224	P2224	UW-1	ST-100	H-350	110VAC
224-KGR-220	•		22-24 ga.	.075 X .807	EW-7D-220	KB224	P2224	UW-1	ST-100	H-350	220VAC
26-L-KGR	•		26 ga.	.075 X 1.000	EW-7D	KB26	P2426	UW-1	ST-100-26	H-350	110VAC
26-L-KGR-220	•		26 ga.	.075 X 1.000	EW-7D-220	KB26	P2426	UW-1	ST-100-26	H-350	220VAC
26-KGR		•	26 ga.	.040 X .750	EW-7D-BF*	WB26SM	P26LN	UW-093R	ST-100-26	H-350	110VAC
26-KGR-220		•	26 ga.	.040 X .750	EW-7D-BF-220*	WB26SM	P26LN	UW-093R	ST-100-26	H-350	220VAC
28-KGR		•	28 ga.	.036 X .750	EW-7D-BF*	WB28SHM	P3032	UW-093R	ST-100-28	H-350	110VAC
28-KGR-220		•	28 ga.	.036 X .750	EW-7D-BF-220*	WB28SHM	P3032	UW-093R	ST-100-28	H-350	220VAC
30-KGR		•	30 ga.	.036 X .750	EW-7D-BF*	SB30MSH-B	P3032	UW-093R	ST-100-30	H-350	110VAC
30-KGR-220		•	30 ga.	.036 X .750	EW-7D-BF-220*	SB30MSH-B	P3032	UW-093R	ST-100-30	H-350	220VAC

* With Backforce Spring

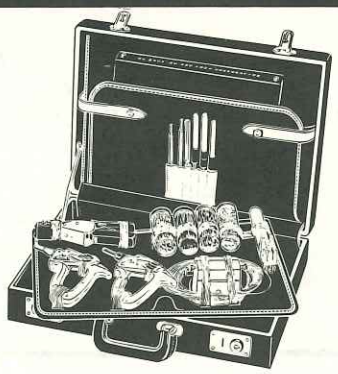
WIRE-WRAPPING KITS

MODEL NO. DC-22-30-PT-110 (110 VOLTS)
MODEL NO. DC-22-30-PT-220 (220 VOLTS)



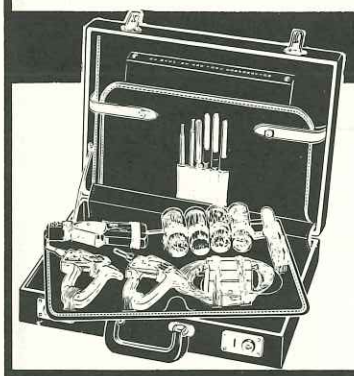
1—AW-5T	Pneumatic Wire-Wrapping Tool
1—EW-7D	Electric Wire-Wrapping Tool
1—G100/R3278	Speed-Wrap Tool
1—UW4	20-26 ga. Hand Unwrap Tool
1—UW1	20-26 ga. Hand Unwrap Tool
1—UW093R	30-32 ga. Hand Unwrap Tool
1—HW30	30 ga. Hand Wrap Tool
1—HW-UW224	22-24 ga. Hand Wrapping & Unwrapping Tool
1—GW224	22-24 ga. Bare Ground Wire Strapping Tool
1—ST-100	22-24 ga. Wire Cut-and-Strip Tool
1—CP200	"D" Connector Presser, Speed-Splice Tool
1—Vial A	Maximum Test Terminal (51T MA) 1 KB224 22-24 ga. Coiltite Bit 1 P2224 22-24 ga. Coiltite Sleeve 1 SB30MMK 30 ga. Coiltite Bit 1 P3032 30-32 ga. Coiltite Sleeve
1—Vial B	30 Guage Test Wire
1—Vial C	"B" Connectors .025 X .025 Test Terminals (25TT)
1—Vial D	24 Guage Test Wire (24 MA)
1—730	Terminal Holding Fixture
1	Demonstration Case
1	Catalog
1	Air Hose
1	Electrical Extension Cord (6')

MODEL NO. DC-22-24-26-30



1—G100/R3278	Speed-Wrap Tool
1—WB3032M	30-32 ga. Modified Coiltite Bit
1—P3032	30-32 ga. Coiltite Sleeve
1—G100/R3394	Speed Unwrap Tool
1—SU2026	20-26 ga. Unwrap Bit
1—UW1	20-26 ga. Hand Unwr. Tool
1—UW2	20-26 ga. Left & Right Hand Unwrap Tool
1—UW093R	30-32 ga. Hand Unwrap Tool,
1—HW224	22-24 ga. Hand Wrap Tool
1—HW-UW30	30 ga. Hand Wrapping & Unwrapping Tool
1—GW224	22-24 ga. Bare Ground Wire Strapping Tool
1—ST-100	22-24 ga. Wire Cut-and-Strip Tool
1—Vial A	Maximum Test Terminals (51T MA)
1—Vial B	.025 X .025 Test Terminals (25TT)
1—Vial A	24 MA, 24 ga. Test Wire
1—Vial B	30 ga. Test Wire
1—KB224	22-24 ga. Coiltite Bit,
1—P2224	22-24 ga. Coiltite Sleeve
1—KB26	26 ga. Coiltite Bit,
1—P2426	24-26 ga. Coiltite Sleeve
1—Vial B	"B" Connectors
1—CP200 D	Connector Presser, Speed-Splice Tool
1—730	Terminal Holding Fixture
1	Demonstration Case
1	Catalogue

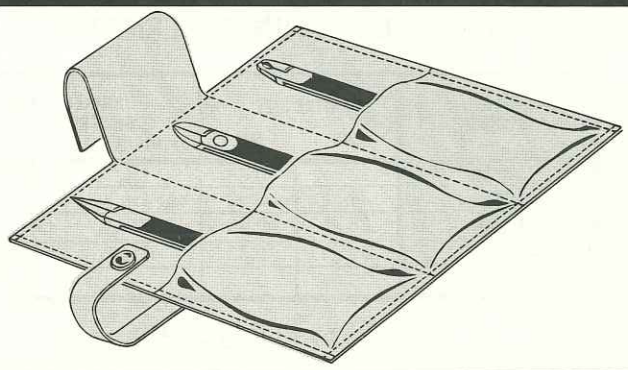
MODEL NO. DC-22-24



1—G100/R3278	Speed-Wrap Tool
1—KB224	22-24- ga. Coiltite Bit
1—P2224	22-24 ga. Coiltite Sleeve
1—G100/R3394	Speed Unwrap Tool
1—SU2026	20-26 ga. Unwrap Bit
1—UW1	20-26 ga. Hand Unwr. Tool
1—UW2	20-26 ga. Left & Right Hand Unwrap Tool
1—UW4	20-26 ga. Insulated, Wire Release Type Unwrap Tool
1—HW224	22-24 ga. Hand Wrap Tool
1—HW-UW224	22-24 ga. Hand Wrapping & Unwrapping Tool
1—GW-224	22-24 ga. Bare Ground Wire Strapping Tool
1—ST100	22-24 ga. Wire Cut-and-Strip Tool
1—Vial A	Maximum Test Terminal (51T MA)
1—Vial B	Minimum Test Terminal (51T MI)
1—Vial C	24 ga. No Nick-Test Wire
1—Vial D	"B" Connectors
1—CP200	"D" Connector Presser, Speed-Splice Tool
1—730	Terminal Holding Fixture
1	Demonstration Case
1	Catalogue

No. 2518-6 HANDY SERVICEMANS PLIER KIT

A convenient servicemans kit is available for field use. It contains the No. 2418-6 Long Nose Plier, No. 2218-6 End Cutter and No. 2118-6 Side Cutters. The plastic cover protects the tools when placed in tool box or carrier.



WIRE-WRAPPING QUALIFICATION ACCESSORIES

QUALIFICATION UNWRAP BIT

An "Unwrap" test is part of the "Qualification" test. It requires that several wrapped connections be unwrapped to determine if the wire in any of the connections being tested is broken.

The "Unwrap" test should not be done by hand, but with the proper qualification unwrap tools; namely, the R-4008 or the 2317 unwrap bits. The Model R-4008 is used with the G100/R3278 Speed-Wrap tool, the 2317 with the G-100.

2317

R4008

TERMINAL HOLDING FIXTURE

The Model 730 Terminal Holding Fixture is designed for occasional or field use. This Model 730 will hold 2 maximum or 2 minimum test terminals. Held to table-top or bench by a lever-activated vacuum plate. There are two additional holes to accommodate the .025" x .025" square section terminals.

MODEL 730

Weight: 6.16 grms (1 lb. 1.5 oz.)
Length: 72.644 mm (2.860")
Width: 59.563 mm (2.345")
Depth: 55.626 mm (2.190")

MODEL 730

TEST TERMINALS

P/N 51T MA-500 "Maximum" test terminal, .030" x .062" (0,75 x 1,55 mm) double ended

51T MA-500

P/N 52T MI-500 "Minimum" test terminal, .012" x .062" (0,32 x 1,55 mm) double ended

52T MI-500

P/N 25TT-500 Square test terminal .025" x .025" x .950" (0,65 x 0,65 x 24,73 mm)

25TT-500

P/N 45TT-500 Square test terminal .045" x .045" x .850" (1,15 x 1,15 x 21,72 mm)

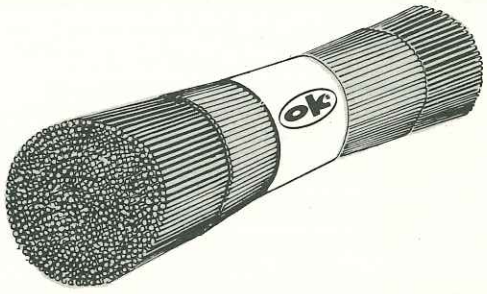
45TT-500

500 TERMINALS PER PACKAGE

"NO NICK" TEST WIRE, CUT AND PRE-STRIPPED TO PROPER "SHINER" LENGTH

PART NUMBER	WIRE SIZE AWG	WIRE SIZE MM	"SHINER" LENGTH OF STRIPPED WIRE INCHES	"SHINER" LENGTH OF STRIPPED WIRE MM
22MA	22 ga.	0,65	1 7/16"	36,5 mm
24MI	24 ga.	0,50	1 7/16"	36,5 mm
26MA	26 ga.	0,40	1 13/16"	46,0 mm
28MI	28 ga.	0,32	1 1/8"	28,6 mm
30MI	30 ga.	0,25	7/8"	22,2 mm

500 WIRES PER PACKAGE



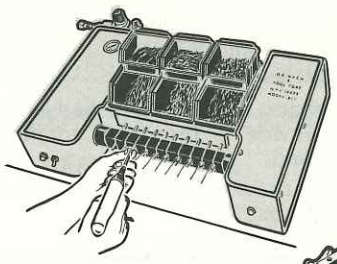
WIRE-WRAPPING QUALIFICATION ACCESSORIES

WIRE-WRAPPING QUALIFICATION FIXTURES

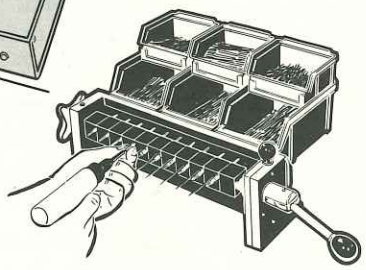
Bit qualfication test fixtures are used for testing wire wrapped connections in conformance with Government, Bell Laboratories and NASA specifications. These fixtures are designed for holding maximum and minimum test terminals. They can be mounted on any work bench and are also available premounted on custom designed rolling carts (Model 601T-RC). for use in narrow service areas. The Model 811T is air-activated for locking and releasing action. All other models are hand lever cam operated.

Model	Description	Weight
601	Bit Qualification Test Fixture — cam locking	4.54 Kg(10 lbs.)
601T	Bit Qualification Test Fixture — cam locking with Terminal Trays.	5.09 Kg(11 lbs. 3 oz.)
811T	Bit Qualification Test Fixture — air operated with Terminal Trays.	13.89 Kg(30 lbs. 6 oz.)

BIT QUALIFICATION TEST FIXTURES



MODEL 811T



MODEL 601T

PULL TEST GAUGES

PULL TEST GAUGES

The Model PG-14 Pull Test Gauge accurately measures the force with which a wire-wrapped connection is stripped off its terminal. It measures this force to an accuracy of 0.5% of full scale. It will retain the reading of the failure force on the dial until released by a thumb slide switch activated by the operator. The bezel is adjusted to zero when shipped.

PART NUMBER	DESCRIPTION	FOR TERMINAL WIDTH INCHES	MM
PG-14	Pull Gauge with Tip PG-14T25	.025-.032	0,63-0,80
PG-14-1	Pull Gauge with Tip PG-14T45	.039-.046	1,00-1,15
PG-14T25	Replacement Tip	.025-.032	0,63-0,80
PG-14T45	Replacement Tip	.039-.046	1,00-1,15

Range 0 to 14 kg.
Dial Divisions:
100 grms per division

PG-14T25

PG-14T45

MODEL PG-14

Length: 9½" (24,0 cm)
Weight: 1¼ lbs. (.5670 kg)
shipped in a fitted wooden case.

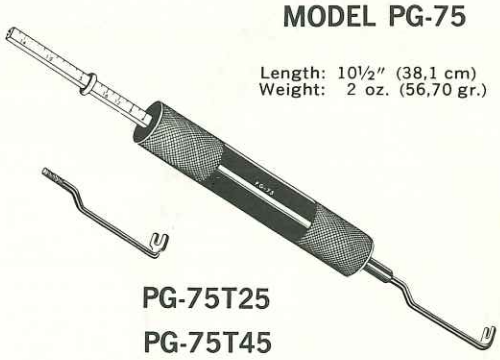
PULL TEST GAUGES

The Model PG-75 Pull Test Gauge is used to measure the minimum strip force required for qualification of wire-wrapped test connections. It can be used on test stands or at work areas. The measured forces retained by a low friction slider on the scale rod. The operator is not required to keep his eyes on the gauge during the test. Easy-to-read permanently engraved scale. The range of readings is from 3½ ounces thru 16 ounces, then from 1 pound to 14 pounds.

PART NUMBER	DESCRIPTION	FOR TERMINAL WIDTH INCHES	MM
PG-75	Pull Gauge with Tip PG-75T25	.025	0,63
PG-75-1	Pull Gauge with Tip PG-75T45	.030-.046	0,75-1,15
PG-75T25	Replacement Tip	.025	0,63
PG-75T45	Replacement Tip	.030-.046	0,75-1,15

MODEL PG-75

Length: 10½" (38,1 cm)
Weight: 2 oz. (56,70 gr.)



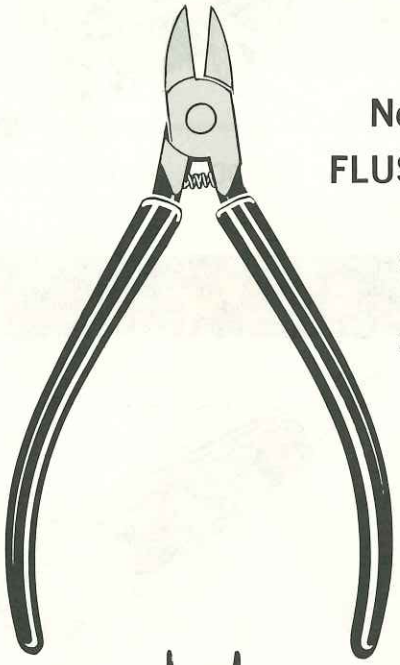
PG-75T25

PG-75T45

INSTRUMENT QUALITY ELECTRONIC PLIERS

Slim and smooth-working tools for the service engineer, the electronic, telecommunication, TV and radio industries.

- Handles, neat and slender, furnished with PVC insulation, provide a firm and comfortable grip for the hand.
- Slender shape provides excellent accessibility in confined spaces.
- Jaw-opening spring between handles for easier operation.
- Specially hardened cutting edges give a clean and accurate cut.
- Single joint construction, smooth and precise in action.
- Effective corrosion protection through plastic coating.



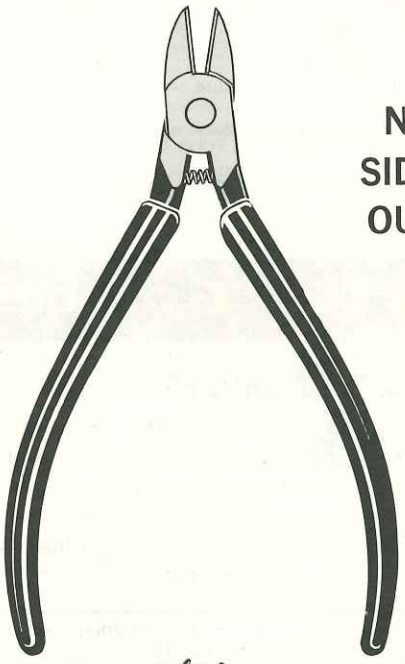
No. 2112-4
FLUSH-CUTTING

Total length:

115mm/4½"

Weight:

50 gr./1.8 oz.



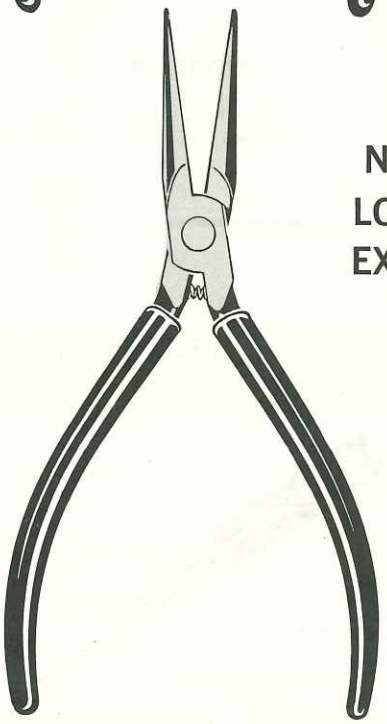
No. 2111-4
SIDE-CUTTER, OUTER EDGE BEVELS

Total length:

115mm/4½"

Weight:

50 gr./1.8 oz.



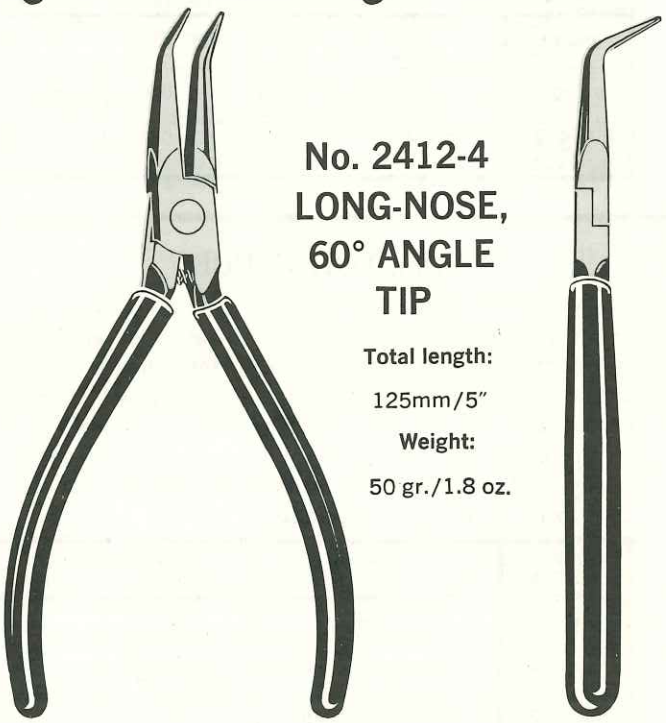
No. 2411-4
LONG-NOSE, EXTRA LONG JAWS

Total length:

130mm/5⅛"

Weight:

50 gr./1.8 oz.



No. 2412-4
LONG-NOSE, 60° ANGLE TIP

Total length:

125mm/5"

Weight:

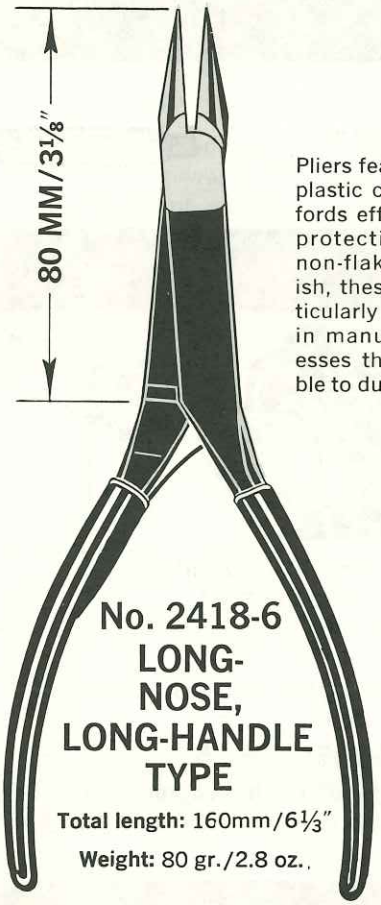
50 gr./1.8 oz.

Note: Illustrations shown reduced approximately 20%

EXTRA LONG REACH ELECTRONIC PLIERS

SAME QUALITY FEATURES AS REGULAR O.K. ELECTRONIC PLIERS, BUT WITH MORE REACH.

SPECIAL DESIGN MAINTAINS PRECISE BLADE ALIGNMENT. FOR APPLICATIONS REQUIRING EXTRA PENETRATION.

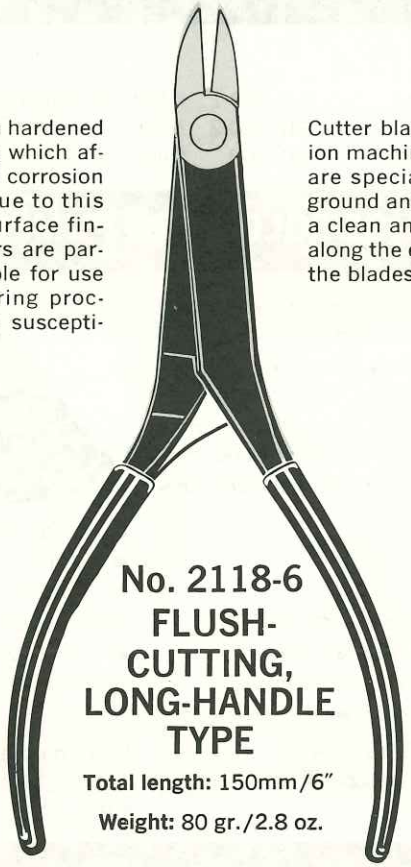


Pliers feature a hardened plastic coating which affords effective corrosion protection. Due to this non-flaking surface finish, these pliers are particularly suitable for use in manufacturing processes that are susceptible to dust.

No. 2418-6 LONG-NOSE, LONG-HANDLE TYPE

Total length: 160mm/6⅓"

Weight: 80 gr./2.8 oz.

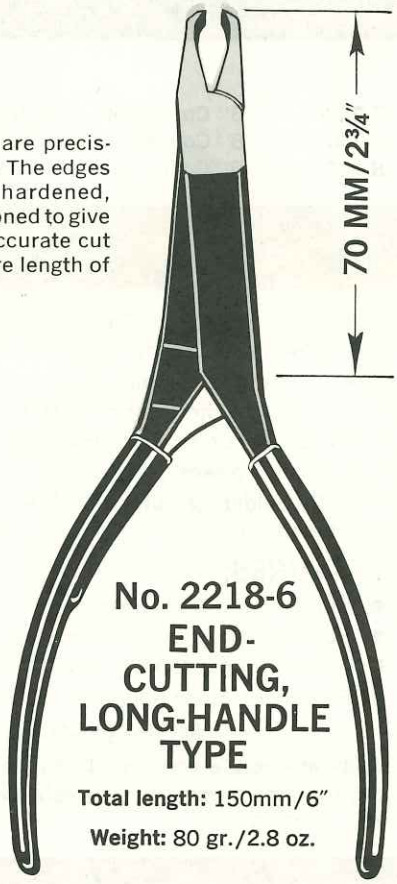


Cutter blades are precision machined. The edges are specially hardened, ground and honed to give a clean and accurate cut along the entire length of the blades.

No. 2118-6 FLUSH-CUTTING, LONG-HANDLE TYPE

Total length: 150mm/6"

Weight: 80 gr./2.8 oz.



No. 2218-6 END-CUTTING, LONG-HANDLE TYPE

Total length: 150mm/6"

Weight: 80 gr./2.8 oz.

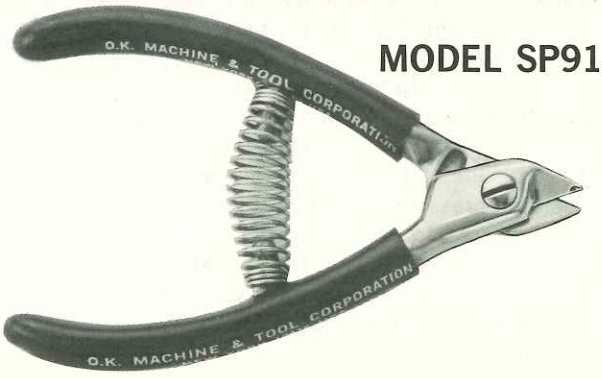
Note: Illustrations shown reduced approximately 20%

"SAFETY" CUTTERS

"SAFETY" CUTTERS

For removal of excess leads from printed circuit boards. "Safety" design assures that pieces drop where they are cut. Shear action rather than snap cutting positively eliminates flying particles. Eliminates the danger from flying wires in keeping with OSHA standards. Precision tip cuts close to board.

MODEL SP914

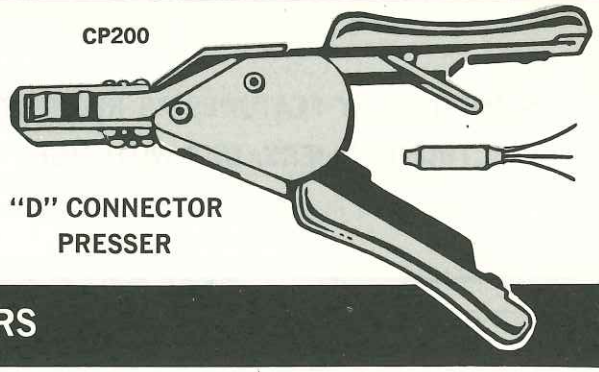


CONNECTOR PRESSER

"D" CONNECTOR PRESSER

The Connector Presser is designed to press "B" Wire Connectors on the ends of unstripped wires. A built-in ratchet assures that a complete pressing cycle is made before the handles are released. A factory set mechanical stop prevents overpressing. A sound, conductive joint of solder quality is assured every time.

CP200 "D" CONNECTOR PRESSER

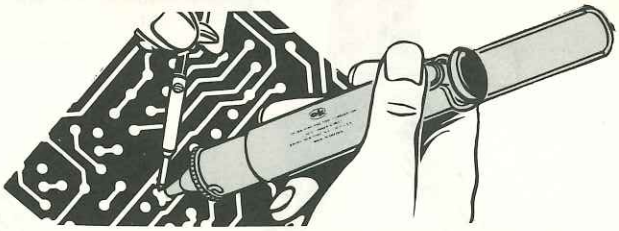


"B" CONNECTORS

B-200-1	"B" Connectors (250 per pkg.)	**BJF-200-1**	Filled "B" Connectors (250 per pkg.)
B-200-2	"B" Connectors (500 per pkg.)	**BJF-200-2**	Filled "B" Connectors (500 per pkg.)
B-200	"B" Connectors (1,000 per pkg.)	**BJF-200**	Filled "B" Connectors (1,000 per pkg.)

DE-SOLDERING PUMPS

The SP-50 and MP-25 De-Soldering Pumps are efficient tools for the removal of components or surplus solder from all surfaces. They will completely and efficiently de-solder printed circuit boards, pin terminals, terminal strips, connectors and leads for electronic circuitry. Their single-handed operation, high suction power, low weight and ease in handling make the O.K. De-Soldering pumps the ideal tools for all electronic service technicians.



FEATURES:

- *Single hand operation*
- *Built-in safety guard to protect users hands and face*
- *Self-cleaning feature ejects solidified solder*
- *Foolproof button release for simple operation*
- *Loads and operates in any position*
- *Easily replaced teflon nozzles*
- *Simple maintenance-occasional drop of oil on piston gasket*
- *Fibre reinforced high impact plastic body with aluminum piston sleeve*

MODEL SP-50

Standard nozzle opening .118 inches (3 mm) at tip, .354 inches (9 mm) long. Replacement nozzle: Part No. SP-2-19.

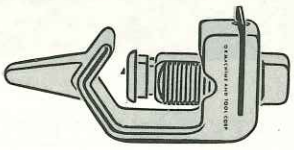
MODEL MP-25

Micro nozzle opening .075 inches (2 mm) at tip, .669 inches (17 mm) long. Replacement nozzle: Part No. MP-2-20.

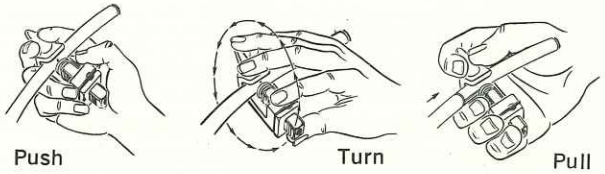
CABLE STRIPPING TOOL

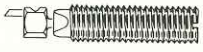
CABLE STRIPPING TOOL "KABIFIX"

Cable stripping is no longer a problem with the "Kabifix" Cable Stripping Tool. Hand operated, easy to use. It will cut and remove insulation from cables, solid conductors and stranded wire. Up to 1" diameter capacity. Automatic change-over from circular to longitudinal cut. Cutting depth is adjustable, fast operation. Simple design with protective plating for long life. Supplied with a plastic pouch. 1. Simple to operate—press the stop pawl to retract ratchet. 2. Turn adjusting screw to set height of blade slightly less than thickness of insulation. 3. Insert cable into trough of tool. 4. Push ratchet up as far as possible. 5. Turn tool circularly (complete turn) then pull for longitudinal cut. 6. Remove insulation from cable.



MODEL NO. CST55
Weight: .2 Kg. (6½ oz.)
Length: 89 mm. (3½")





MODEL NO. RB55
"KABIFIX" Replacement Blades

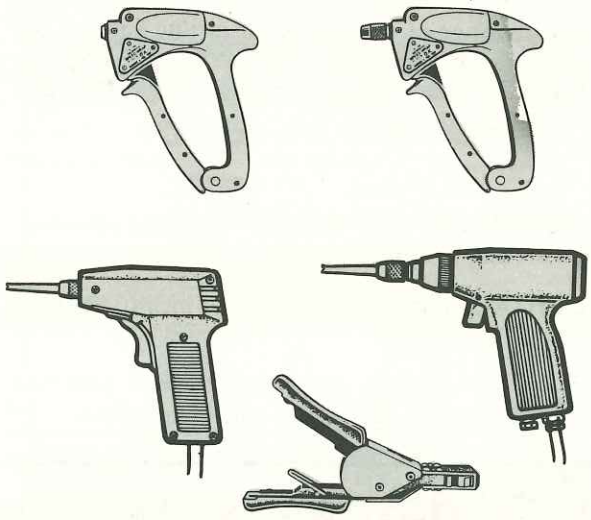
REPAIRS

OK REPAIR SERVICE

We rebuild and repair all makes of manually operated wire-wrapping tools. Our expert and experienced staff will completely disassemble each tool, examine and check every part and replace any part whenever necessary. The reassembled tool will be thoroughly tested and qualified on our special equipment. Ordering repair Code: **RS-WW.**

We also repair and service all makes of "D" Connector Pressers. Our experts will completely disassemble the tool — check all parts and replace all needed parts. The tool will be thoroughly cleaned, reassembled and adjusted and tested on our checking equipment. Ordering Repair Code: **RS-CP.**

We also rebuild and repair our Speed-Wrap line of air and electric power wire-wrapping tools. If you have any of our power tools in need of rebuilding or repair, use Ordering Repair Code: **RS-PWW.**

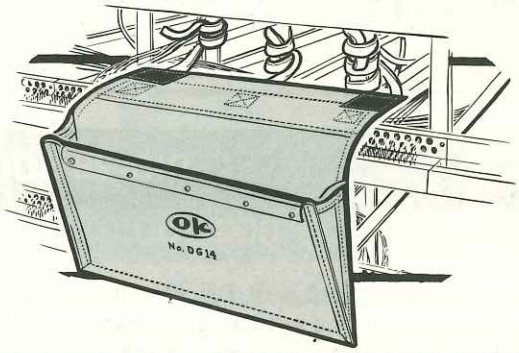


MAIN FRAME BAG

MAIN FRAME BAG

This bag is designed to give the "main frame" serviceman a "catch-all" for all his tools. It prevents clippings, solder splatter from causing "shorts." Its three straps makes attachng to equipment easy. End pockets for tool storage. Heavy canvas duck, neoprene lining and web straps.

D-G14 MAIN FRAME BAG



WIRE REEL HOLDER

WIRE REEL HOLDER

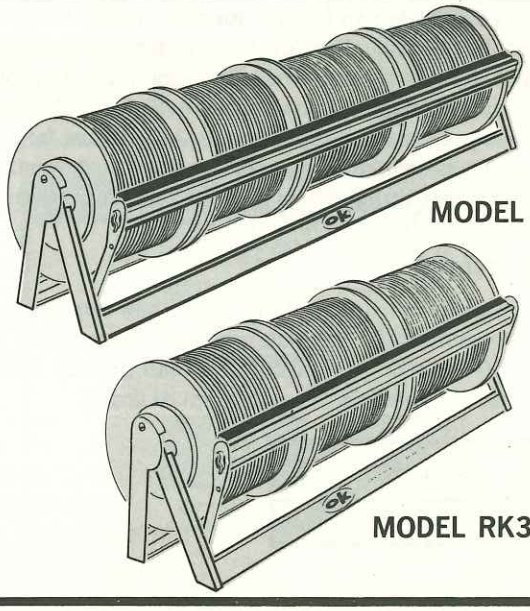
The model RK315 Wire Reel Holder is the perfect answer for technicians handling wire reels for repairs, installations or harness assemblies. It is equipped with a wooden rod reel carrier and a tension bar to keep reels revolving without overriding or backlash to tangle the wire. The soft plastic edge of the tension bar acts as a static brush to remove lint and dust from the wire as it is pulled out for use. The unit, with the reels removed can be folded flat for convenience in storing. The RK420 unit handles 4 wire reels. The RK315 unit handles 3 wire reels of 6″ width, max. diameter 10″.

Model RK 420

Weight: 3 lbs. (1,361 Kg.)
Length: 20 inches (490,00 mm)
Width: 7 inches (17,50 mm)
Height: 8 inches (196,00 mm)

Model RK315

Weight: 2½ lbs. (1,134 Kg.)
Length: 15 inches (367,50 mm)
Width: 7 inches (171,50 mm)
Height: 8 inches (196,00 mm)



MODEL RK420

MODEL RK315

DIP SOCKETS

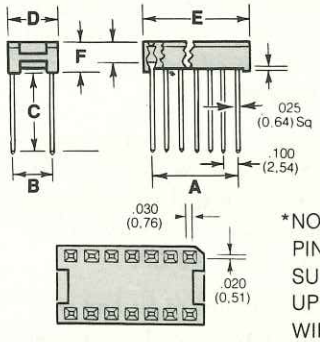
A wide range of superior dual-in-line sockets for pluggable packaging of Integrated Circuits. DIP configurations accommodate virtually all SSI, MSI, and LSI devices.

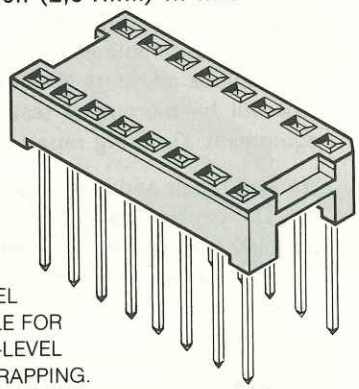
INSULATOR Glass filled thermoplastic polyester, black (U.L. recognized SE-0).

CONTACT Phosphor bronze, .010 inch (0,254mm) leaf spring.

PLATING .000010 inch (0,000254mm) gold over .000050 inch (0,00127mm) (minimum) nickel.

Available in 14, 16, 24, 36 and 40 pin DIP configurations, with standard .100 inch (2,54mm) in-line spacing.





*NOTE: PIN LEVEL SUITABLE FOR UP TO 3-LEVEL WIRE-WRAPPING.

PART NO.	NO. PINS	A INCH	A MM	B INCH	B MM	C* INCH	C* MM	D INCH	D MM	E INCH	E MM	F (max.) INCH	F (max.) MM
DIP-14	14	.600	15,24	.300	7,62	.630	16,00	.395	10,03	.745	18,92	.305	7,75
DIP-16	16	.700	17,78	.300	7,62	.630	16,00	.395	10,03	.845	21,46	.305	7,75
DIP-24	24	1.100	27,94	.600	15,24	.630	16,00	.695	17,65	1.245	31,62	.305	7,75
DIP-36	36	1.700	43,18	.600	15,24	.630	16,00	.695	17,65	1.845	46,86	.305	7,75
DIP-40	40	1.900	48,26	.600	15,24	.630	16,00	.695	17,65	2.045	51,94	.305	7,75

DIO-28 SOCKETS / INTERCONNECTS

The high-density 28-pin I/O socket and plug contain 4 rows of 7 pins on a .100 inch (2,54mm) grid, thus taking no more space than a standard 14-pin DIP socket.

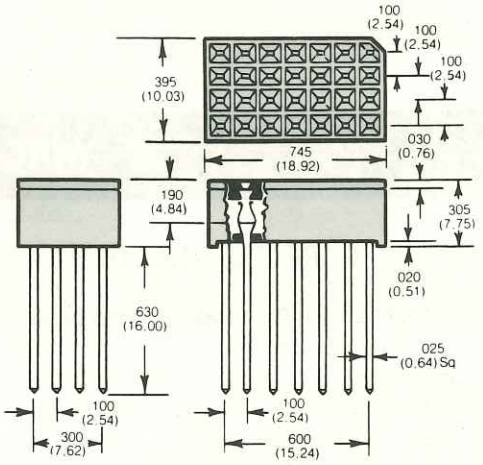
APPLICATIONS

DIO-28 sockets can be used for such applications as: Modular construction of P.C. boards; interfacing Input/Output signals; internal jumpering within one P.C. board (often eliminating the need for multi-layer boards); as test cables using an I.C. socket for the test point; connection of memory circuits to mother boards; and transfer of signals from a concentrated area of P.C. board to remote locations.

FEATURES

For high density installations, these new Interconnect components offer valuable space savings. Based on a .100" x .100" grid layout, they can provide a high number of contacts in a minimum of space.

PART NO.
DIO-28



INSULATOR Glass filled thermoplastic polyester, black (U.L. recognized SE-0).

PLUG CONTACT Phosphor bronze, .010 inch (0,254mm) leaf spring.

DIO-P-28 PLUG/INTERCONNECTS AND COVERS

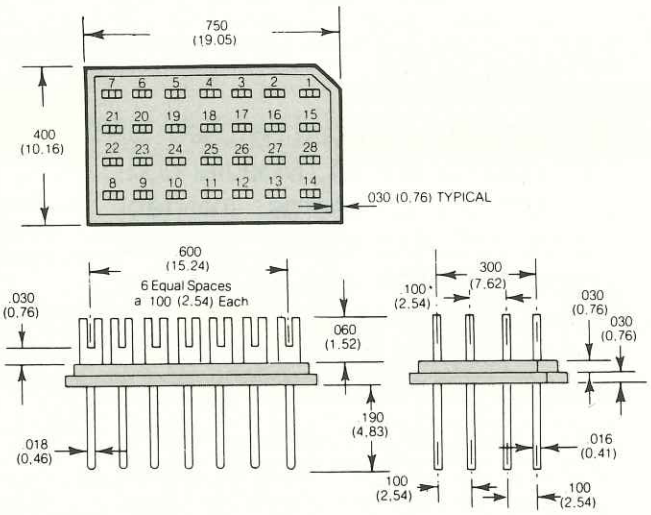
The high density 28-pin I/O plug contains 4 rows of 7 pins on a .100 inch (2,54mm) grid, thus taking no more space than a standard 14-pin DIP socket.

APPLICATIONS

DIO-P-28 plugs can be used for such applications as: Modular construction of P.C. boards; interfacing Input/Output signals; internal jumpering within one P.C. board (often eliminating the need for multi-layer boards); as test cables using an I.C. socket for the test point; connection of memory circuits to mother boards; and transfer of signals from a concentrated area of P.C. board to remote locations.

FEATURES

For high density installations, these new Interconnect components offer valuable space savings. Based on a .100" x .100" grid layout, they can provide a high number of contacts in a minimum of space.



SPECIFICATIONS:

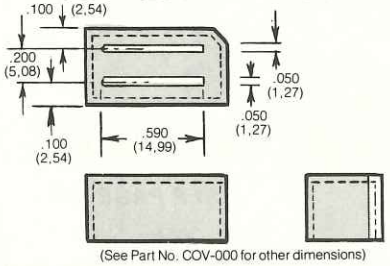
INSULATOR Glass filled thermoplastic polyester, black (U.L. recognized SE-0).

SOCKET CONTACT Copper alloy selected for desirable mechanical and electrical characteristics.

PLATING .000010 inch (0,000254mm) gold over .000050 inch (0,00127mm) (minimum) nickel.

COV-D050 COVER

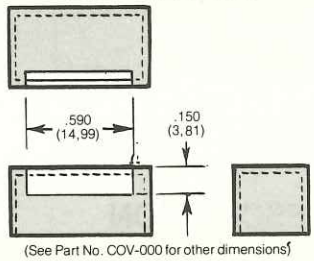
TOP ENTRY -DOUBLE



(See Part No. COV-000 for other dimensions)

COV-S150 COVER

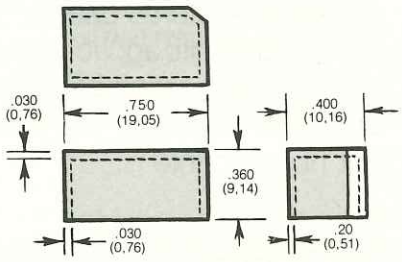
SIDE ENTRY



(See Part No. COV-000 for other dimensions)

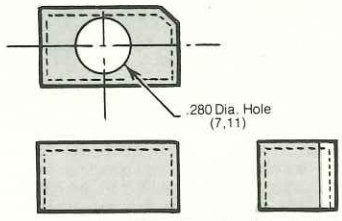
COV-000 COVER

FULLY CLOSED



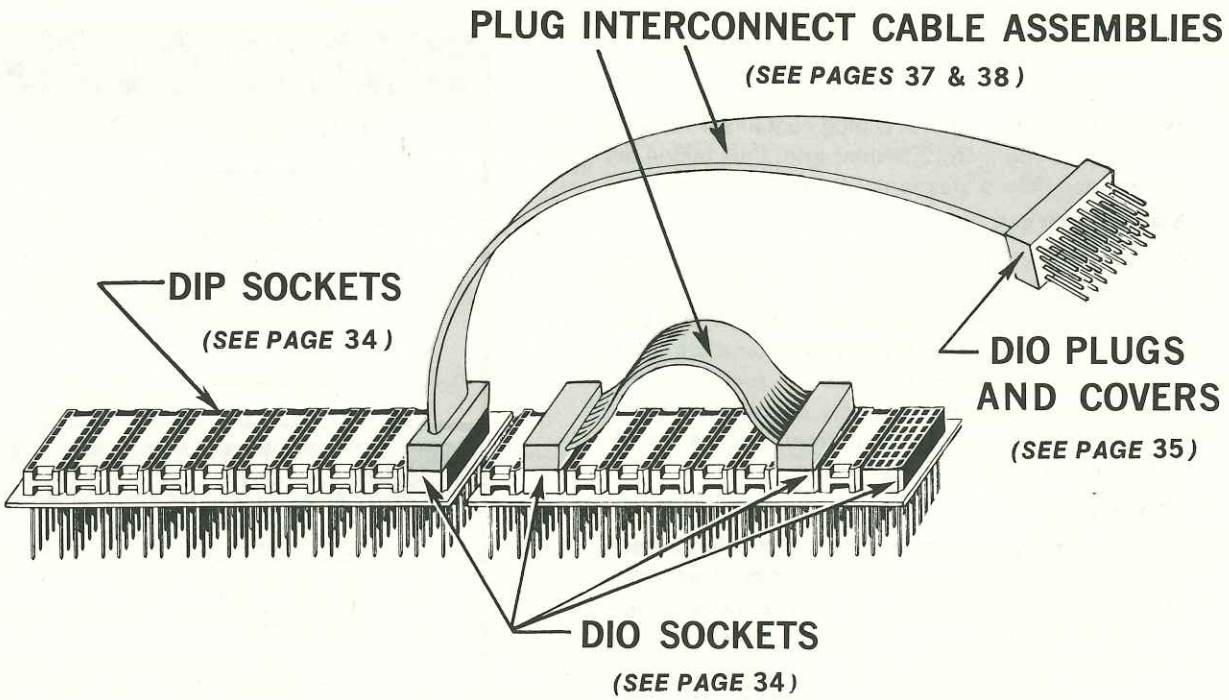
COV-280D COVER

TOP ENTRY -CIRCULAR



(See Part No. COV-000 for other dimensions)

DIO-P-28 PLUG INTERCONNECT CABLE ASSEMBLIES



DESCRIPTION

OK Machine & Tool Corporation offers a complete line of 28 pin, high density interconnect cable assemblies for DIP (dual in-line package) systems used in I.C. and other electronic applications. These interconnect assemblies are available with discrete wire cable or flat ribbon cable.

FEATURES

For high density installations, these new Interconnect components offer valuable space savings. Based on a .100" x .100" grid layout, they can provide a high number of contacts in a minimum of space.

APPLICATIONS

DIP Interconnects can be used for such applications as: Modular construction of P.C. boards; interfacing Input/Output signals; internal jumpering within one P.C. board (often eliminating the need for multi-layer boards); as test cables using an I.C. socket for the test point; connection of memory circuits to mother boards; and transfer of signals from a concentrated area of P.C. board to remote locations.

CONTINUED ON NEXT PAGE

DIO-P-28 PLUG INTERCONNECT CABLE ASSEMBLIES

ORDERING NOMENCLATURE

CODE | **PART NO.**

S DIO-P-28-26 2-TO-050

S — Connector plug on one end only (single-ended).
D — Connector plugs on both ends of cable (double-ended).

Connector call-out. For complete connector description, see Data Chart: Page 35

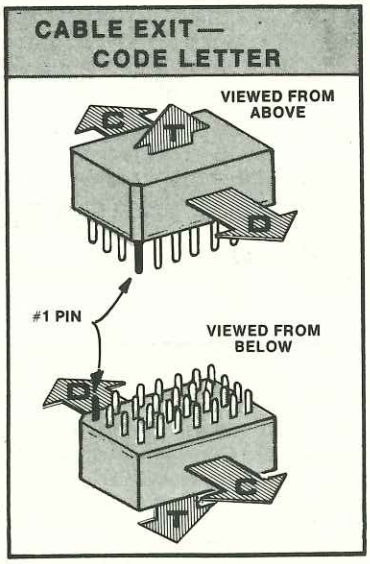
AWG of conductors:
26 = 26 AWG (0,40 mm)
28 = 28 AWG (0,32 mm)
30 = 30 AWG (0,25 mm)

Conductor construction:
1 — Discrete (individual, bundled) wires. (white)
2 — Flat Ribbon Cable.

Cable exiting points (for each connector).
O = No connector at one end (single-ended).
T = Cable to exit from **top** of connector.
C = Cable to exit from **side** of connector opposite Pin #1.
D = Cable to exit from **side** of connector next to Pin #1.
(See cable exit drawing on Page 38.).

Dash length (in millimeter) of cable portion only. Does **not** include plug connector length.

CABLE EXIT— CODE LETTER



NOTE: The above may not hold true for Connector #2 with flat ribbon cable (see diagrams and information on Page 38).

SPECIFICATIONS

CONNECTOR: See Data Chart: Page 35

CABLE: above at left –AWG of Conductors and Conductor Construction

ENCAPSULATION: Epoxy, per AMS - 3736

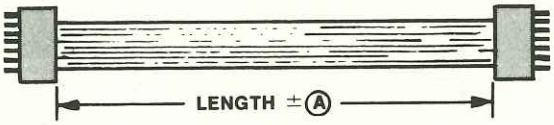
TERMINATION: All connections soldered per Mil-STD-454 B

TESTING: All interconnects are 100% tested for continuity and for voltage breakdown

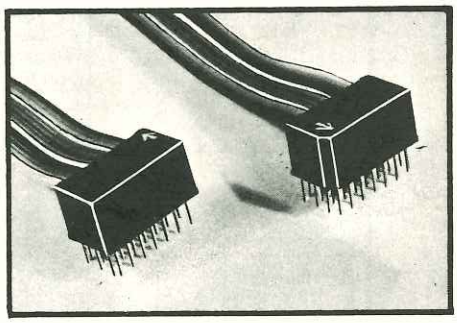
EXAMPLE: **PART NO. D DIO-P-28 26 2- TD - 200**

Connector plugs on both ends (double-ended)
Connector is DIO-P-28
Conductors are 26 AWG
Flat Ribbon Cable
T = Cable to exit from **top** of one connector
D = Cable to exit from **side** of other connector next to Pin #1
Cable length (between connectors) is 200 mm

CABLE LENGTH — MANUFACTURING TOLERANCES



LENGTH (MM)	TOLERANCE A
25,0 to 49,0	+3,0
50,0 to 299,0	+6,0
300,0 to 999,0	+12,0
1,000 and Longer	+25,0



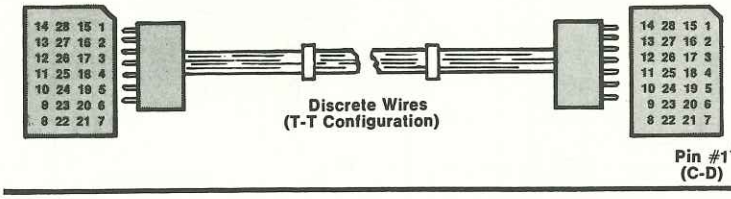
NOTE: On side entry connectors, a white arrow stamped on the cover aids in identifying the Pin No. 1 location after the interconnects are installed on the boards.

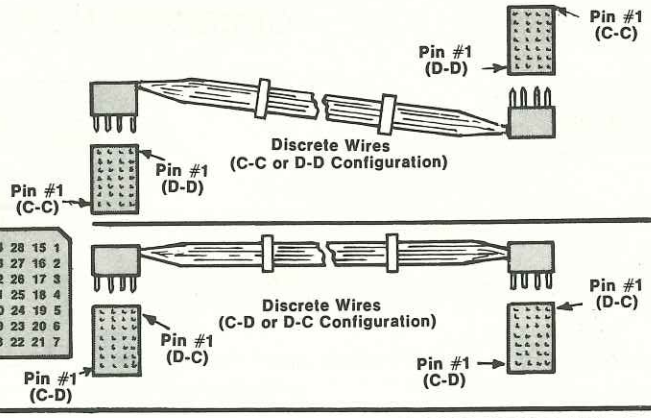
CONTINUED ON NEXT PAGE

DIO-P-28 PLUG INTERCONNECT CABLE ASSEMBLIES

DISCRETE WIRES INTERCONNECTS

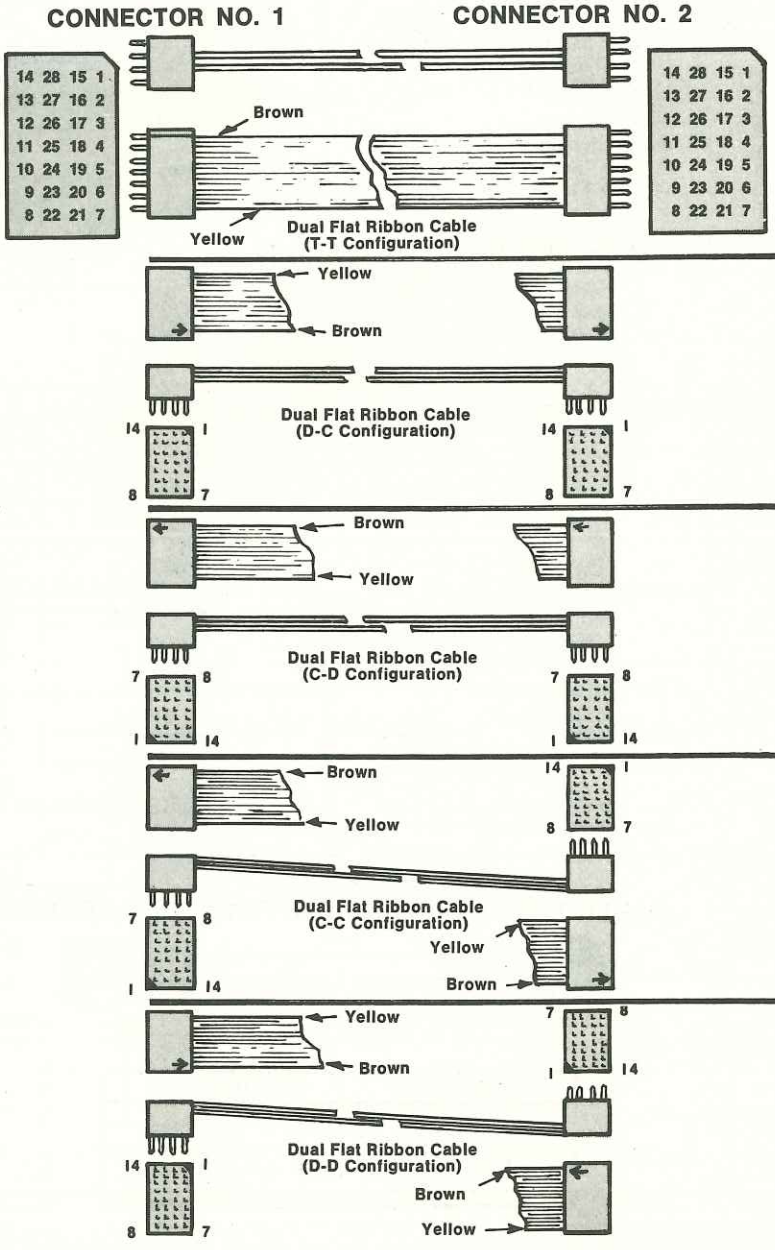
OK Machine & Tool Corp. 28-pin interconnects which use discrete wires are always connected Pin No. 1 to Pin No. 1, etc. up to Pin No. 28 to Pin No. 28. All discrete wire is white.





FLAT RIBBON CABLE INTERCONNECTS

The use of two 14-lead flat ribbon cables for high density 28-pin interconnects makes it necessary to connect a wire from Pin No. 1 on one connector (Connector No. 1 as diagrammed at right) to Pin No. 14 on the opposite connector (Connector No. 2). The balance of the cable wires are reverse connected (7 to 8, 15 to 28, etc.) to correspond as shown in the Wire List below. (Cable wire color coding is also shown in the Wire List.) To aid in identifying the Pin No. 1 location on side exit connectors before and after connection to the board, a white arrow is stamped on the connector cover in the appropriate corner (see photo at left). On top exit connectors (T configuration), the chamfered corner of the connector cover always indicates Pin No. 1.



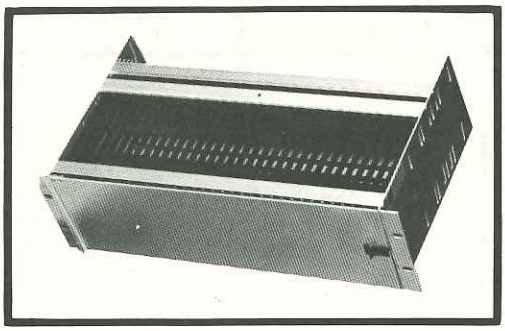
WIRE LIST—28-PIN INTERCONNECTS

(Note: Discrete wiring is all white)

Wire Color Ribbon Cable	Connector #1	Connector #2
Brown	1	14
Red	15	28
Orange	2	13
Yellow	16	27
Green	3	12
Blue	17	26
Violet	4	11
Gray	18	25
White	5	10
Black	19	24
Brown	6	9
Red	20	23
Orange	7	8
Yellow	21	22
Brown	14	1
Red	28	15
Orange	13	2
Yellow	27	16
Green	12	3
Blue	26	17
Violet	11	4
Gray	25	18
White	10	5
Black	24	19
Brown	9	6
Red	23	20
Orange	8	7
Yellow	22	21

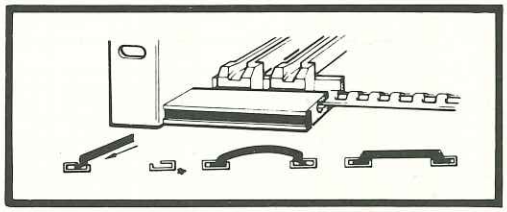
VERORACK 3A

VERORACK 3A kits are easy to assemble and provide maximum versatility. Slotted end plates accept a variety of card widths and lengths within each standard end plate height. The /.5 models are supplied with two 17" long molded Noryl guide blocks with card slots at 0.5" centers. Up to 34 cards with a length of either 6.5" or 8.0" can be accommodated. The /V models contain guide location strips which permit custom location of cards at any multiple or 0.2" centers. Three lengths of snap-in guides are available for use with /V models. When recommended card lengths are used, cards are supported over 85% of their length. Recommended card lengths: G1½B–5.6", G2B–6.5", G3B–8.0". Connector mounting rails and associated hardware are included in kits. Assembly can be provided for a nominal charge.



VERORACK 3A Frame Kit Ordering Information

Part Number	Panel Height	Width	Depth	Card Max.	Height Min.	Guides Included	Card Spacing
VR3A/3U/.5/G2	5.25"	19"	11"	4.5"	2.75"	Yes	.05"
VR3A/4U/.5/G2	7.0"	19"	11"	6.25"	4.5"	Yes	.05"
VR3A/3U/V	5.25"	19"	11"	4.5"	2.75"	No	Variable
VR3A/4U/V	7.0"	19"	11"	6.25"	4.5"	No	Variable



Snap-In Guides for use in /V Frame Kits

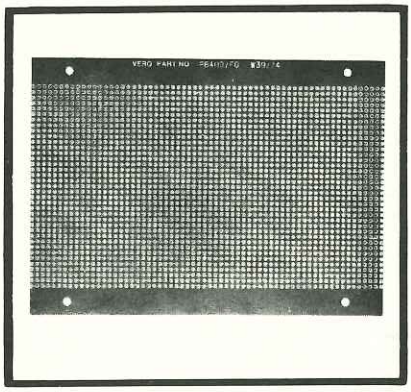
Part No.	Guide Type	Recommended Card Length
13130	G1½B	5.6"
12597	B2B	6.5"
14572	G3B	8.0" & 9.6"

Hinged Panel Kits for use with VERORACK 3A Frames

Part No.	Frame Height
11935/1	3U
12935/2	4U

CIRCUIT BOARDS

TERMINAL BOARDS

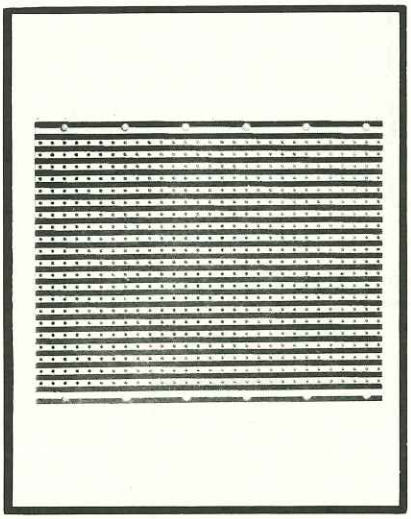


Pre-punched boards on 0.1" x 0.1" hole matrix are available in a variety of sizes in either epoxy glass or XXXP phenolic base. Both .040" and .052" hole sizes are offered making these boards equally useful for both discrete components and IC's. A variety of terminal and socket pins are available for use with these modules.

Part No.	Length	Width	Hole Diameter	Compatible Terminals
409*	6.4"	4.7"	.052"	
410/FG	9.4"	7.05"	.052"	TP/2140, TP/2143
523/FG	17.9"	4.5"	.052"	TP/2141
1010/FG	17.0"	4.8"	.052"	MT/11081
5033/1FG	17.0"	8.5"	.052"	

*Also available in epoxy glass. To order, add /FG to Part No.

VERO BOARDS®

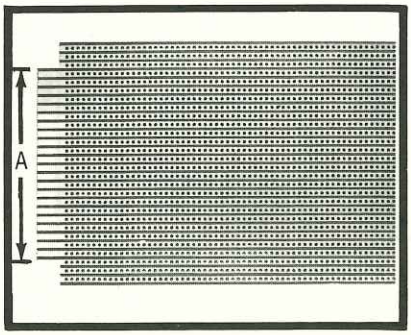


VEROBOARDS are manufactured from .062" phenolic or epoxy glass laminate with 1 ounce copper foil. The base material is punched and some of the copper is removed to leave parallel, punched copper strips. Circuit assembly is accomplished by interconnecting the copper strips with components and breaking the strips where necessary, with either a Spot Face Cutter (Part No. 2022), or drill. Plug-in versions with gold flashed contacts are also available. Hole matrix is 0.1 x 0.1 on all boards.

	Part No.	Hole Dia.	Length	Width	Compatible Terminals
FULLY PIERCED BOARD	VB/122*	.040"	17.9"	3.74"	TP/2144, TP/2142, TP/11032
	VB/124	.040"	17.9"	7.05"	TP/11034, MT/11082
	VB/125	.040"	6.4"	3.97	MT/13378, MT14909/1
	VB/126*	.040"	17.9"	4.7"	
	VB/128	.040"	6.4"	5.72"	

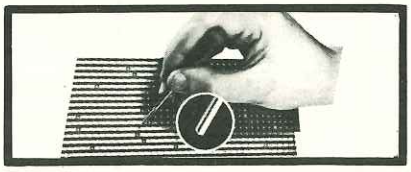
*Also available in epoxy glass. To order, add /FG to Part No.

PLUG-IN VERO BOARDS



Part No.	Matrix	Hole Dia.	Length	Width	Contact	A	Conn.	Compatible Terminals
VB/302	0.1 x 0.1"	.040"	4.75"	2.54"	24	2.49"	2233	TP/11032 TP/2192
VB/303	0.1 x 0.1"	.040"	3.7"	2.54"	16	1.69"	2232	TP/11034
VB/308	0.1 x 0.1"	.040"	5.1"	3.74"	32	3.29"	2234	MT/13378
VB/314	0.1 x 0.1"	.040"	8.0"	5.72"	32	3.294"	2234	TP/2144
VB/315	0.1 x 0.1"	.040"	11.0"	6.0"	32	3.29"	2234	MT/11082
VB/11246	0.156x0.1"	.052"	6.5"	4.5"	22	3.590"	2245	TP/2140 TP/2143 TP/2141 MT/11081

SPOT FACE CUTTER



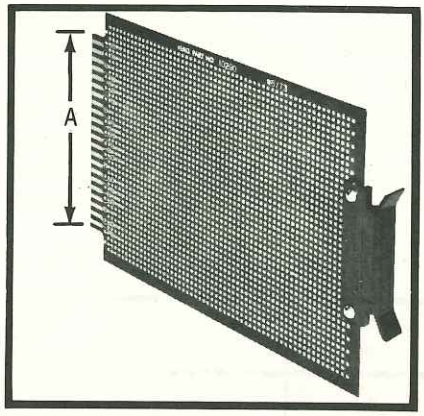
Part No. 2022
For use with all VEROBOARDS to break copper strips.

® is a registered T.M. of VERO

PRODUCTS APPEARING ON THIS PAGE ARE AVAILABLE ONLY IN THE U.S.A.

CIRCUIT BOARDS

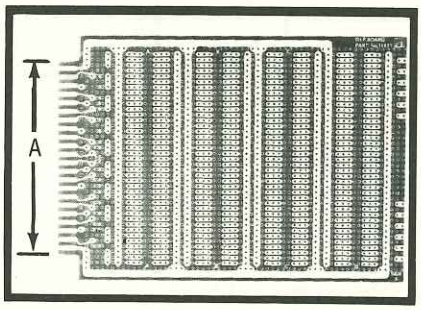
FINGER BOARDS

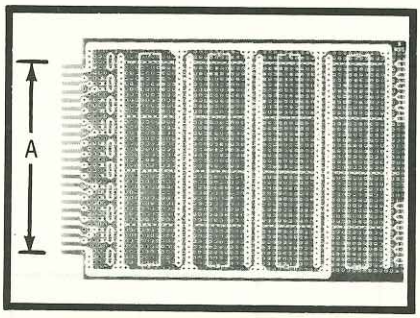


VERO Finger Boards are epoxy glass boards pierced with either a .052" or .040" diameter holes on a 0.1" x 0.1" matrix. Each board is basically a terminal board provided with a row of gold flashed copper contact fingers at one end to be used with a standard PC edge connector. These boards handle both dual in-line and discrete components, and are ideally suited for use with wire wrap IC sockets.

Part No.	Hole Dia.	Length	Width	Contacts	Contact Spacing	A	Conn.	Compatible Terminals
10290	.052"	6.5"	4.5"	22/22	.156"	3.572"	2245/1	MT/11081
12846	.052"	6.5"	4.5"	40/40	.100"	4.029"	13565	
24928	.040"	6.5"	4.5"	22/22	.156"	3.572"	2245/2	TP/2144, TP/11032
50767	.040"	9.6"	4.5"	22/22	.156"	3.572"	2245/2	TP/2142, TP/11034
50768	.040"	9.6"	4.5"	36/36	100"	3.687		MT/13378, MT/11082

D.I.P. BOARDS



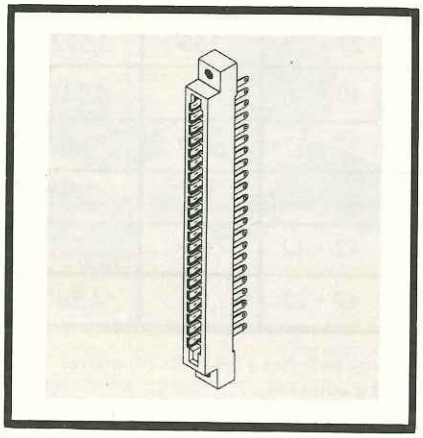


VERO D.I.P Boards may be used for mounting and interconnecting dual in-line packages for R&D or production runs. Power and ground rails are positioned adjacent to all D.I.P. locations and are connected to the edgeboard contacts. Duplicate power and ground rails have also been provided on the reverse side in order to reduce impedance. D.I.P. Boards are punched overall with a matrix of .040" holes on 0.1" centers to accept dual in-line packages or IC sockets. The holes outside the copper tracks may be used for terminal pin interconnection. Packaging density is shown as number of 14 pin devices that fit on each board.

Part No.	Length	Width	Contacts	Spacing	A	Density	Conn.	Compatible Terminals
11820*	6.5"	4.5"	40	0.1"	4.025"	20	2236	–
11821	6.5"	4.5"	40	0.1"	4.025"	20	2236	–
11823	6.5"	4.5"	42+POL	0.1"	4.5"	20	2238	TP/2144, TP/2142
11824*	6.5"	4.5"	22/22	0.156"	3.572"	20	2245/2	TP/11032, TP/11034
11825	6.5"	4.5"	22/22	0.156"	3.572"	20	2245/2	MT/13378,MT/14909/1
12499	6.5"	4.5"	40/40	0.1"	4.025"	20	13565	–
12749	8.0"	4.5"	42+POL	0.1"	4.5"	25	2238	–
12757	6.5"	6.25"	59+POL	0.1"	6.25"	28	2239	–

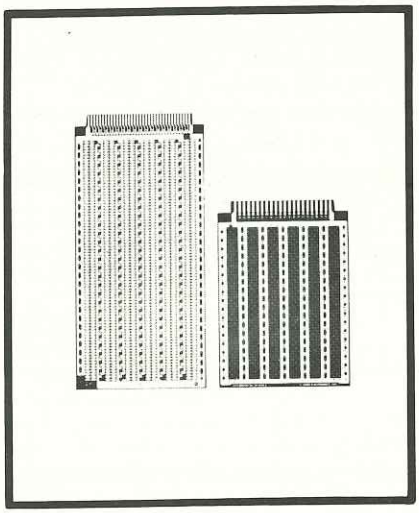
*XXXP material – All others G10FR4 epoxy glass.

PC EDGE CONNECTORS



Part No.	Contacts	Contact Spacing	Mounting Centers
2234	32	0.1"	3.70"
2236	40	0.1"	4.388"
2238	42	0.1"	4.888"
2245	22	0.156"	4.026"
2245/2	22/22	0.156"	4.026"
13565	40/40	0.1"	4.388"

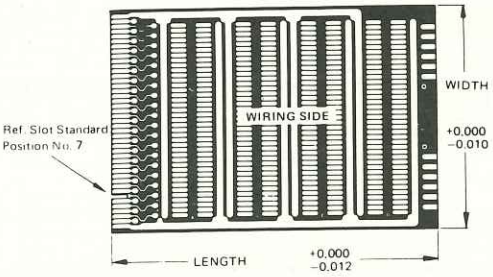
HI-DENSITY D.I.P. BOARDS



These new D.I.P. boards incorporate three separate planes on a standard double-sided board due to the unique layout of the copper pattern. The wiring side contains two voltage planes, and the component side contains a ground plane to reduce noise. This feature makes these boards ideally suited for circuits requiring a mixture of COSMOS and TTL Logic. All boards are made of G10FR4 epoxy glass and the 4.5" x 6.5" board will accept 36 14-pin D.I.P.'s comparable densities can be achieved with any other D.I.P. package).

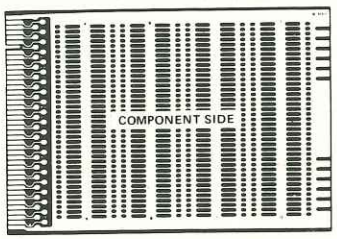
Part No.	Length	Width	No. of Contacts	Contact Spacing	Tongue Width
06-0128J	6.5"	4.5"	22+22	.156"	3.572"
06-1027B	6.5"	4.5"	36+36	.100"	3.687"
06-1028H	9.6"	4.5"	36+36	.100"	3.687"

GROUND PLANE D.I.P. BOARDS



This NEW series of **VERO D.I.P.** Ground Plane Boards has been designed to provide a ground plane for use in high speed TTL circuitry. The base material is 1 ounce double-sided, copper-clad epoxy glass, and double-sided, gold-plated contacts are provided on all sizes.

Other design aspects are similar to the **VERO D.I.P.** boards described previously.



Part No.	Length	Width	No of Contacts	Contact Spacing	Tongue Width
18241 FG	6.50"	4.50"	22 + 22	.156"	3.572"
19077 FG	6.50"	4.50"	40 + 40	.10	4.025"
19079 FG	6.50"	8.00"	77 + 77*	.10"	8.00"
19081 FG	6.50"	6.25"	59 + 59*	.10"	6.25"
19089 FG	6.50"	4.50"	42 + 42	.10	4.50"
19091 FG	8.00"	4.50"	42 + 42	.10"	4.50"

All boards are punched with 1.02" (0.04) diameter holes on a 2.54" (0.10) matrix.
*First and last two contacts make up power and ground rail.

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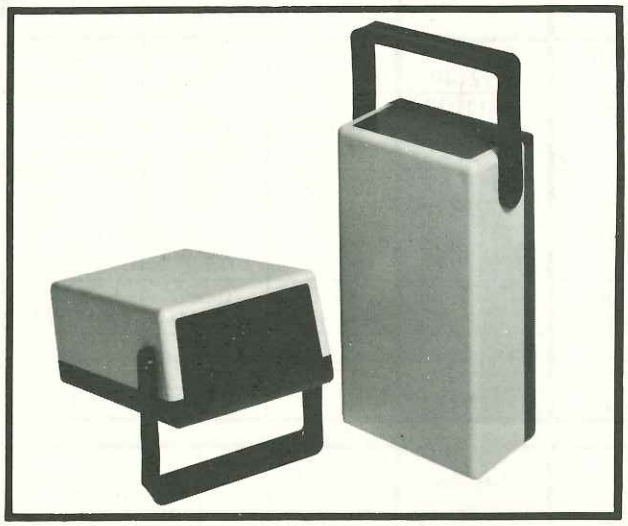
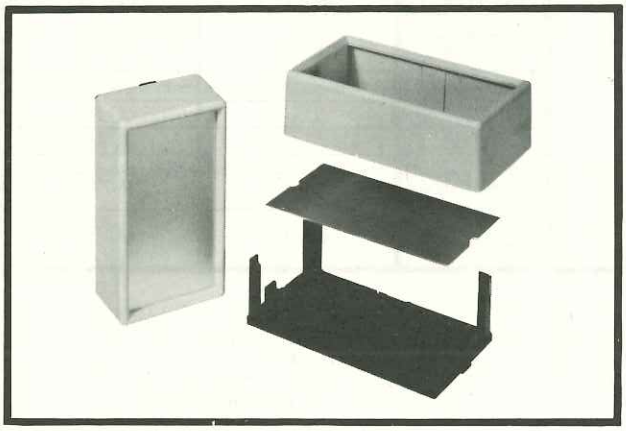
BOXES



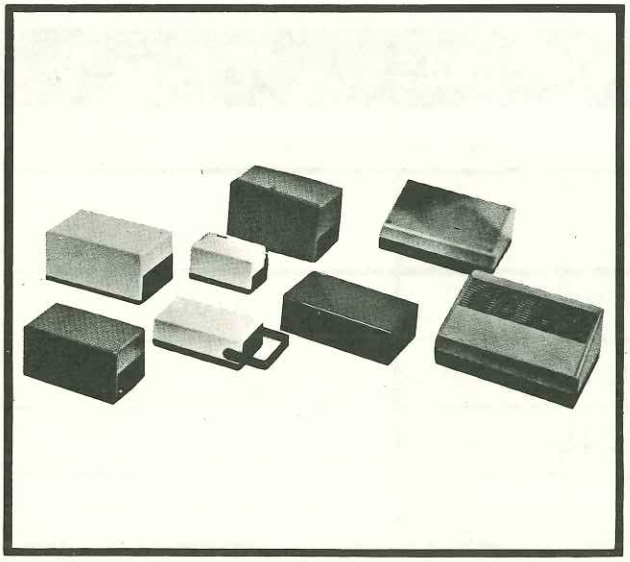
These rectangular boxes are similar to the two-tone gray plastic boxes shown below, but have the added feature of a handle that locks in two positions. When in the raised position, the handle is used for carrying and when folded back, it ideally positions the box for benchtop use. Available in three sizes.

Part No.	Width	Height	Length
90-30-187	3.150"	1.969"	5.906"
90-40-187	4.331"	2.362"	7.402"
90-41-187	4.331"	3.800"	7.402"



This newly developed box incorporates an aluminum panel into the design of the rectangular boxes. The panel mounts on the lower portion of the box allowing the top cover to be removed without disturbing the circuitry. Prior to wiring, the aluminum panel may be taken out of the case for ease of punching, drilling, silk screening, etc.

Part No.	Width	Height	Length
95-20-087	2.529"	1.575"	4.724"
95-40-087	4.92"	2.76"	8.27"



These two-tone gray plastic boxes are accurately molded from hi-impact polystyrene. Four threaded inserts are molded into the lower section of each box and the tongue and grooved sections provide tight closure.

Rectangular Boxes

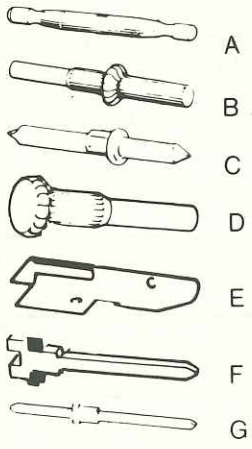
Part No.	Width	Height	Length
90-10-087	1.969"	.984"	3.937"
90-11-087	1.969"	1.575"	3.937"
90-20-087	2.529"	1.575"	4.724"
90-30-087	3.150"	1.969"	5.906"
90-40-087	4.331"	2.362"	7.402"

Sloping Units

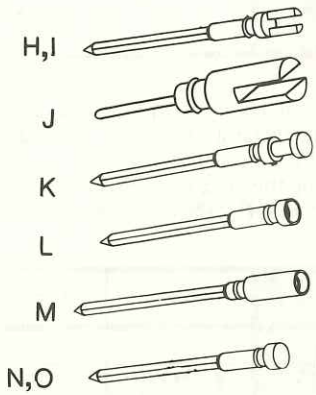
Part No.	Width	Height	Length
90-80-087*	6.141"	3.939"	8.661"
90-81-087**	6.141"	3.939"	8.661"

*With anodized aluminum front plate.
**With plastic grill.

MINI-WRAP TERMINAL AND SOCKET PINS



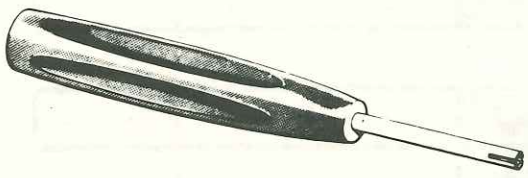
	Name	Part No.	Hole Dia.	Overall Length	#Tool
A	Terminal Pin	TP/2144 TP/2140	0.040" 0.052"	0.469" 0.469"	IT/2151 IT/2150
B	Shouldered Terminal Pin	TP/11032 TP/2143 TP/2142	0.040" 0.052" 0.040"	0.380" 0.470" 0.380"	IT/2151 IT/2151 IT/2150
C	Half Pin	TP/11034 TP/2141	0.040" 0.052"	0.286" 0.286"	IT/2151 IT/2150
D	Shorting Pin	TP/11036 TP/11037	0.040" 0.052"	0.125" 0.125"	IT/2151 IT/2150
E	Miniature Terminal	MT/11081 MT/11082	0.052" 0.040"	0.360" 0.360	IT/11772/4 IT/11772/4
F	Miniwrap Terminal	MT/13378	0.040"	0.690"	14477
G	Dbl. Sided	MT/14909/1	0.040"	0.970	14477



	Name	Part No.	Compatible Pierced	Hole Dia. Drilled
H	Header Pin	22580/3/2	ϕ0.052	ϕ0.055
I	Header Pin	23191/3/2	ϕ0.040	ϕ0.041
J	Terminal Header Pin	22579/2	ϕ0.052	ϕ0.055
K	Test Point Pin	23192/3/2	ϕ0.052	ϕ5
L	Socket Pin	22683 /3/2	ϕ0.052	ϕ0.055
M	Socket Pin	22690/3/2	ϕ0.040	ϕ0.041
N	Single Sided Pin	22684/3/2	ϕ0.052	ϕ0.055
O	Single Sided Pin	23190/3/2	ϕ0.040	ϕ0.041

Pins A to E inclusive are produced from brass.
Pin F is produced from 36 SWG Beryllium Copper.
All pins have a flow brightened tin finish.
A specially designed pin insertion tool is available.
All mini wrap terminal and socket pins are manufactured from brass with a fold over nickel plating.

TERMINAL INSERTION TOOLS



Part No.	Pin Type & Size
IT/2150	All 0.052"
IT/2151	All 0.040"
IT/11772/4	052 Miniature Terminal
IT/11772/5	040 Miniature Terminal

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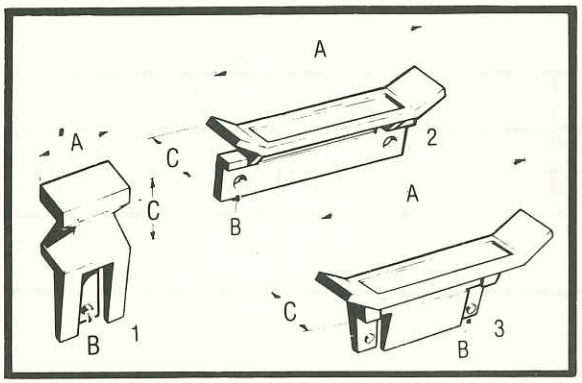
ACCESSORIES

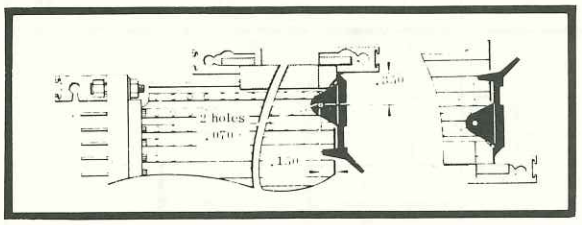
CARD HANDLES



Molded in Noryl, these three attractively styled card handles are available in six standard colors in either River/Bolt-on (10036) or Snap-on (10035 and 10037). For ordering colors, add suffixes to the Part Numbers as follows:
Black is standard, Gray/1, Red/2, Blue/3, Green/4, Yellow/5.

#	Part No.	Dimensions A	B	C
1	10035	.38"	.098"	.420"
2	10036	2.23"	.130"	.500"
3	10037	2.23"	.098"	.500"

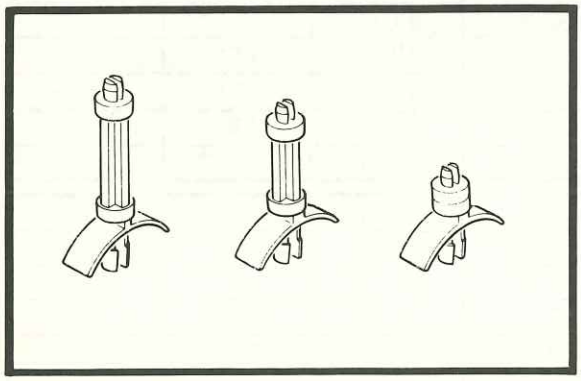
CARD EJECTORS



Designed to be used with any .062" PC Board.
Available in black only.

Part No. 13301
Note: Minimum card spacing is .400.

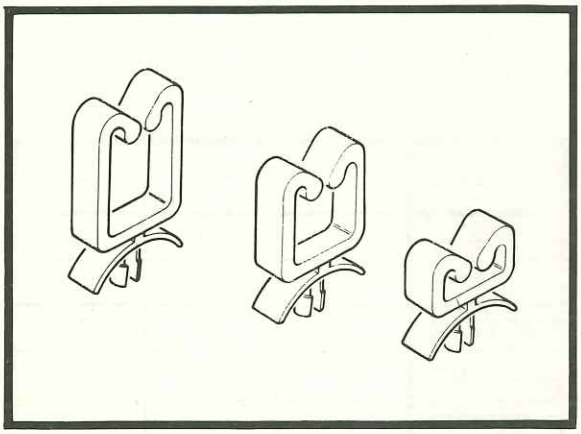
CIRCUIT BOARD STANDOFFS



These board standoffs have been designed to enable PC Boards to be mounted to a range of panel thicknesses from .060" to .090". This is accomplished by the spring action of the horizontal portion of the fixing clip. The top (or circuit board end) of the spacer gives snap-in insertion into boards normally .062" thick. Material used is red nylon. Top mounting hole diameter is 0.158" and bottom is 0.196".

Part No.	Overall Length	Separation Distance Board to Chassis
22-1417G	0.6"	0.24"
22-1418B	0.95"	0.59"
22-1419H	1.11"	0.75"

CABLE CLIPS

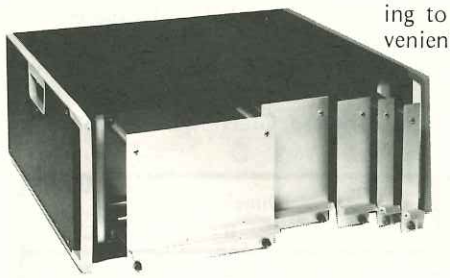


This range of cable clips uses the same type of snap-in fixing as the board standoffs and can be mounted to panels ranging from .062" to 0.100" thick. Available in three sizes, they accommodate a wide range of different sizes and numbers of cables or wires. Cables can be readily inserted by pushing them down through the top of the clip and are then neatly in position and prevented from springing out again by the shaped top fingers of the clip. Material used is red nylon with mounting hole diameter of 0.196".

Part No.	Overall Length	Internal Dimension of Clips
22-1414L	.61"	0.12 x 0.39"
22-1415F	.81"	0.31 x 0.39"
22-1416A	1.0"	0.51 x 0.39"

INSTRUMENT CASES

"A" SERIES CASE



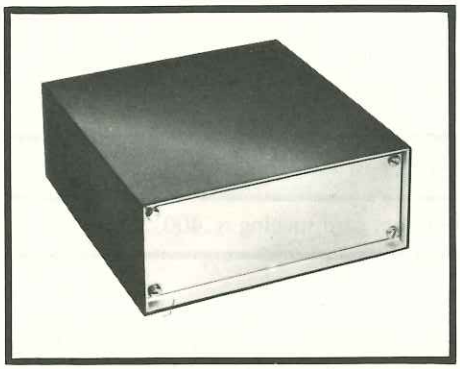
Attractively styled in gray PVC clad aluminum with black molded Noryl handles. Available in two sizes only to accommodate a 7.0" x 19" wide x 15" deep unit, or rack mounting to accommodate a 7.0" x 17" wide x 15" deep unit. Shipped in kit form for convenient storage.

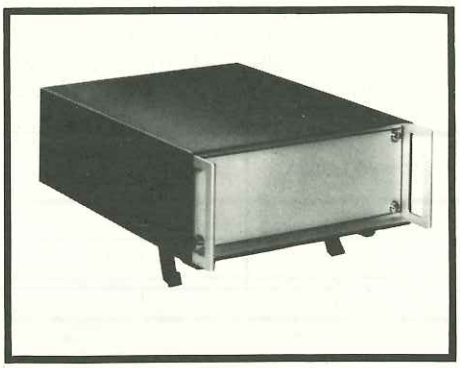
Part No.	Height	Width	Depth
ICA/4U/1516*	7.0"	17"	15"
ICA/4U/1519	7.0"	19"	15"

* Rack mounting

"D" SERIES CASE

These attractive slim-line cases are available in two widths, two depths and several panel heights. All units are available with and without front handles. Finish is a blue-gray vinyl paint. Custom finishes available in quantities of 25 or more units.

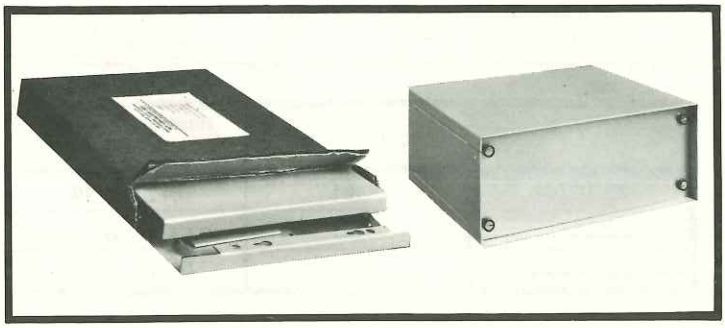




Part No.	Height	Width	Depth	Panel Height
ICD/3U/11	6.08"	19.44"	12.5"	5.25"
ICD/3U/12*	6.08"	19.44"	12.5"	5.25"
ICD/4U/15	7.83"	19.44"	12.5"	7.0"
ICD/4U/16*	7.83"	19.44"	12.5"	7.0"
ICD/5U/19	9.58"	19.44"	12.5"	8.75"
ICD/5U/20*	9.58"	19.44"	12.5"	8.75"
ICD/3U/211	6.08"	19.44"	17.5"	5.25"
ICD/3U/212*	6.08"	19.44"	17.5"	5.25"
ICD/4U/215	7.83"	19.44"	17.5"	7.0"
ICD/4U/216*	7.83"	19.44"	17.5"	7.0"
ICD/5U/219	9.58"	19.44"	17.5"	8.75"
ICD/5U/220*	9.58"	19.44"	17.5"	8.75"
ICD/3U/111	6.08"	10.94"	12.5"	5.25"
ICD/3U/112*	6.08"	10.94"	12.5"	5.25"
ICD/4U/115	7.83"	10.94"	12.5"	7.0"
ICD/4U/116*	7.83"	10.94"	12.5"	7.0"
ICD/5U/119	9.58"	10.94"	12.5"	8.75"
ICD/5U/120*	9.58"	10.94"	12.5"	8.75"

PACK CASE

The VEROPACK series of cases has been designed to provide an inexpensive housing for smaller instruments. These cases are made of a beige PVC clad steel and are supplied complete with anodized front panel. All cases are supplied knocked-down for ease of storage.

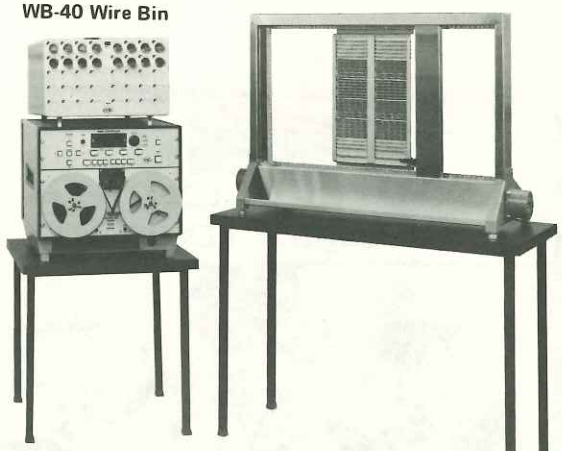


Part No.	Height	Width	Depth
49-1470L	4.5"	10.9"	8.7"
49-1471F	6.2"	12.4"	12.1"
49-1472A	4.5"	16.9"	8.7"
49-1473G	6.2"	10.9"	8.7"
49-1474B	6.2"	15.9"	8.7"

PRODUCTS APPEARING ON THIS PAGE ARE AVAILABLE ONLY IN THE U.S.A.

SEMI-AUTOMATIC WIRE-WRAPPING SYSTEMS

The Speed-Wrap WWM wire-wrapping systems incorporate new design concepts for efficient low cost panel wiring that is equally adaptable to both prototype and production applications. A modular terminal locator system positions a hand held wire-wrapping tool to the proper terminal pin for each operation of a wiring sequence. Available in either Numerical Control (N/C) or Direct Computer Control (DCC) configurations, these systems are unequalled for accuracy, productivity and economy.



N/C SYSTEM WWM 600

N/C SYSTEM WWM 360

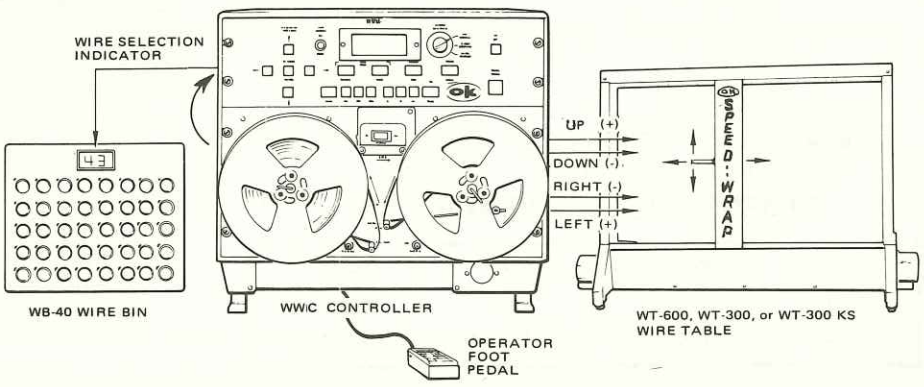
N/C SEMI-AUTOMATIC WIRE-WRAPPING SYSTEM

The system consists of three integrated modules, the WWC Controller, the Wiring Table, and the Wire Bin. The operator presses a foot pedal instructing the controller to read and execute the information in the next bit on the tape. The controller directs the pointer on the wiring table to the proper pin, and indicates to the operator which wire size is required. It simultaneously displays for the operator that this step is the first termination (T1) of the wire.

The operator selects the wire and makes the termination with a wire-wrapping tool — then presses again. The pointer is repositioned, the display indicates "Second Termination" (T2), and no wire size is indicated, since none is required.

This simplicity results in high productivity after only a brief introduction to the system. Production rates of 250 wires per hour are common with complete confidence in wiring reliability.

The three elements of the WWM-600 and WWM-360 form wiring systems of fundamental design for ease of operation and dependable accuracy.



SEMI-AUTOMATIC WIRE-WRAPPING SYSTEMS

WWC Controller with Tape Reader

FEATURES—WWC CONTROLLER

- *INCREMENTAL INCH CONFIGURATION.*
- *FULL CONTROL COMPLEMENT FOR MAXIMUM VERSATILITY.*
- *DISPLAYS INDICATE FIRST WRAPPING POINT (T1) SECOND POINT (T2) OR ROUTING POINT (VIA).*
- *TAPE FORMAT SELECTION-SWITCH INSTANTLY BETWEEN EIA STANDARD RS-244-A AND ASCII / ISO*
- *PAPER TAPE READER – PHOTOELECTRIC AT 150 CHARACTERS PER SECOND.*
- *TAPE TRANSPORT ALSO FEATURES FAST REWIND/ REVERSE, AND TAPE LOAD SENSORS FOR PROPER TENSIONING.*
- *SPOOLS 7½" (190mm) SPOOLS HANDLE 500 FEET (150M) OF TAPE, ENOUGH FOR APPROXIMATELY 3000 TERMINATIONS.*
- *DIGITAL DISPLAY SELECT-WIRE NUMBER, X-AXIS POSITION, Y-AXIS POSITION.*
- *JOG CONTROLS FOR FAST AND SLOW MANUAL POINTER POSITIONING.*
- *PARITY ERROR – STOPS MACHINE IN EVENT OF INCONSISTENT PERFORATION. PREVENTS INCORRECT MOVEMENT DUE TO TAPE FAULT.*
- *X-Y ZERO REFERENCE CHECK.*
- *PANIC STOP – BUFFERED SO DATA IS NOT LOST.*
- *POWER CONFIGURATIONS TO MEET YOUR REQUIREMENTS.*
- *OPTIONAL CONTROLLER FOR USE WITH WT-300 SKS, WT-300 SSKS: MODEL WWC-J. (FOR MOVES LONGER THAN 49.99 INCHES (1276MM).*

DIMENSIONS

WWC CONTROLLER

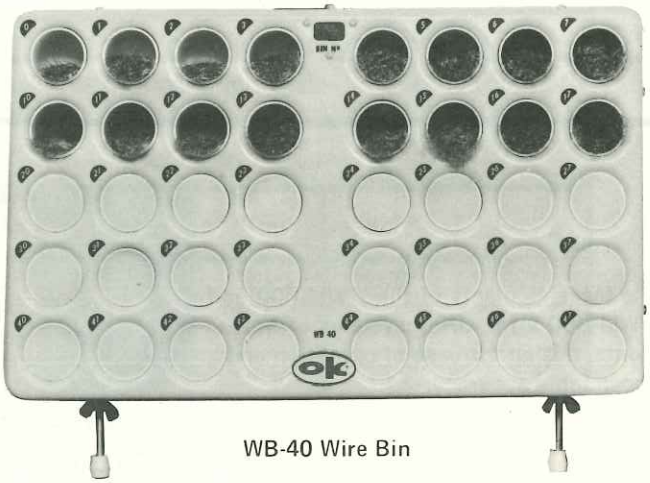
HEIGHT	WIDTH	DEPTH	WEIGHT
18″ 45,7cm	20″ 50,8cm	22″ 55,9cm	89 pounds 40,4 Kg.

FEATURES—WB-40 WIRE BIN

- *40 ADJUSTABLE DEPTH WIRE TUBES.*
- *DEPTH ADJUSTABLE FROM 0-19 INCHES (0-490mm).*
- *FULLY PORTABLE – DESIGNED FOR PLACEMENT ANYWHERE IN SYSTEM FOR MAXIMUM ACCESSIBILITY.*
- *DIGITAL READOUT INDICATES PROPER BIN LOCATION FOR WIRE SELECTION.*
- *MODULAR DESIGN PERMITS EASY EXPANSION TO 80 OR 120 WIRE TUBE CAPACITY.*
- *AVAILABLE WITHOUT DIGITAL DISPLAY AS MODEL WB-40-1.*

DIMENSIONS—WB-40 WIRE BIN

HEIGHT	WIDTH	DEPTH	WEIGHT
10″ 25,4cm	17″ 43,2cm	20″ 50,8cm	15 pounds 6,9 Kg.



WB-40 Wire Bin

SEMI-AUTOMATIC WIRE-WRAPPING SYSTEMS

X-Y POSITIONING TABLES

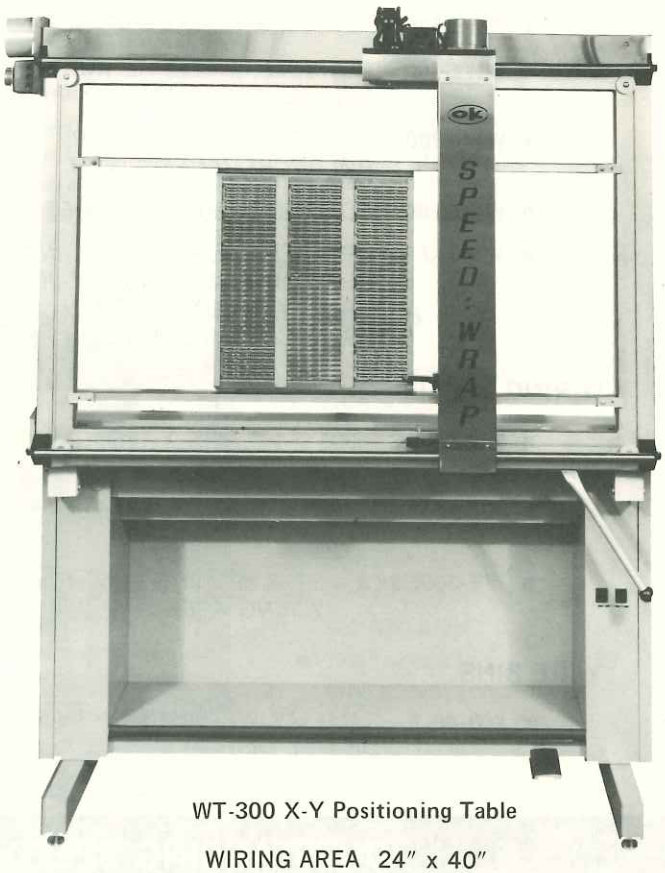
Precision workpiece support. On signal from controller, wire-wrapping tool guide is stepped to proper pin. Location accuracy is six times that necessary for faultless pin engagement. Pointer positioning rate is 10 inches/second (25,4cm/second) with stepping increments of .005 inches (0,013cm).

Model WT-600 Positioning table can accept panels with maximum wiring area of 17 by 24 inches (43,2cm by 61,0cm). Designed for bench or tabletop mounting. Equipped with leveling adjustments.

Model WT-300 is a floor mounted positioning table which accepts panels of maximum wiring area 24 by 40 inches (61,0 by 102,0cm). Tilt fully adjustable through 90° vertical/horizontal. Adjustable height (see options list for larger tables similar to WT-300).

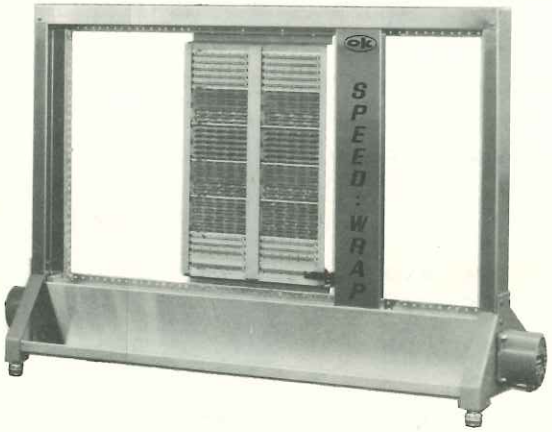
DIMENSIONS: X-Y POSITIONING TABLES

MODEL	HEIGHT	WIDTH	DEPTH	WEIGHT
WT-600	27″ 68,6cm	40″ 101,6cm	16″ 40,6cm	50 pounds 22,7 Kg.
WT-300	64″ 162,6cm	54″ 137,2cm	23″ 58,4cm	210 pounds 95,3 Kg.



WT-300 X-Y Positioning Table

WIRING AREA 24″ x 40″
(61,0cm x 102,0cm)



WT-600 X-Y Positioning Table

WIRING AREA 17″ x 24″
(43,2cm x 61,0cm)

FEATURES— X-Y POSITIONING TABLES

- *SEALED BEARING STEPPING MOTORS.*
- *OPEN BACK DESIGN – NO LIMIT ON PANEL DEPTH.*
- *TEFLON IMPREGNATED LEAD SCREWS.*
- *TEFLON GUIDES.*
- *SEE OPTIONS LIST FOR LARGER STANDARD TABLES.*
- *CUSTOM TABLES ON REQUEST.*

OPTIONS FOR WWM SEMI-AUTOMATIC WIRE-WRAPPING SYSTEMS

CONTROLLERS

- ***WWC500*** – *PORTABLE, ABSOLUTE INCH.*
- ***WWC400*** – *CONSOLE, INTEGRAL WIRE BIN, ABSOLUTE METRIC.*
- ***WWC300*** – *CONSOLE, INTEGRAL WIRE BIN, INCREMENTAL, INCH.*
- ***WWC200*** – *PORTABLE, ABSOLUTE METRIC.*
- ***WWC-J*** – *PORTABLE, INCREMENTAL, INCH. USE WITH WT-300-SKS, WT-300-ESKS FOR MOVES LONGER THAN 49.99 INCHES (1270MM).*

WIRING TABLES

- ***WT-300KS*** – *30" X 46" (72,6 X 116,8CM) WIRING AREA.*
- ***WT-300SKS*** – *38" X 46" (96,5 X 116,8CM) WIRING AREA.*
- ***WT-300ESKS*** – *38" X 60" (96,5 X 152,4CM) WIRING AREA.*

WIRE BINS

- ***WB-40-1*** – *SAME AS WB-40 BUT WITHOUT DIGITAL DISPLAY.*
- ***WWC-2WB*** – *CONTROLLER WIRED FOR 80 TUBE DOUBLE BIN.*
- ***WWC-3WB*** – *CONTROLLER WIRED FOR 120 TUBE TRIPLE BIN.*

SYSTEM OPTIONS

- *FAILSAFE INTERLOCK PREVENTS ACCIDENTAL POINTER MOVEMENTS.*
- *UNIVERSAL GUN POINTER FOR PRECISE TOOL SUPPORT AND ADJUSTABLE WRAPPING LEVEL REGULATION.*
- *TERMI-POINT (TM-AMP) TOOL HOLDER FOR TERMI-POINT APPLICATIONS.*
- *WORKPIECE MOUNTING RAILS.*
- *EUBANKS WIRE-STRIPPER INTERFACE.*
- *CARD READER – PERMITS EASY LIST EDITING.*
- *COMPREHENSIVE SPARE PARTS KITS.*

SOFTWARE OPTIONS

- *TAPE GENERATION PACKAGES FOR IBM, GAI, PDP COMPUTERS.*
- *TAPE GENERATING SERVICE.*

OUTSTANDING SPEED-WRAP SYSTEM FEATURES

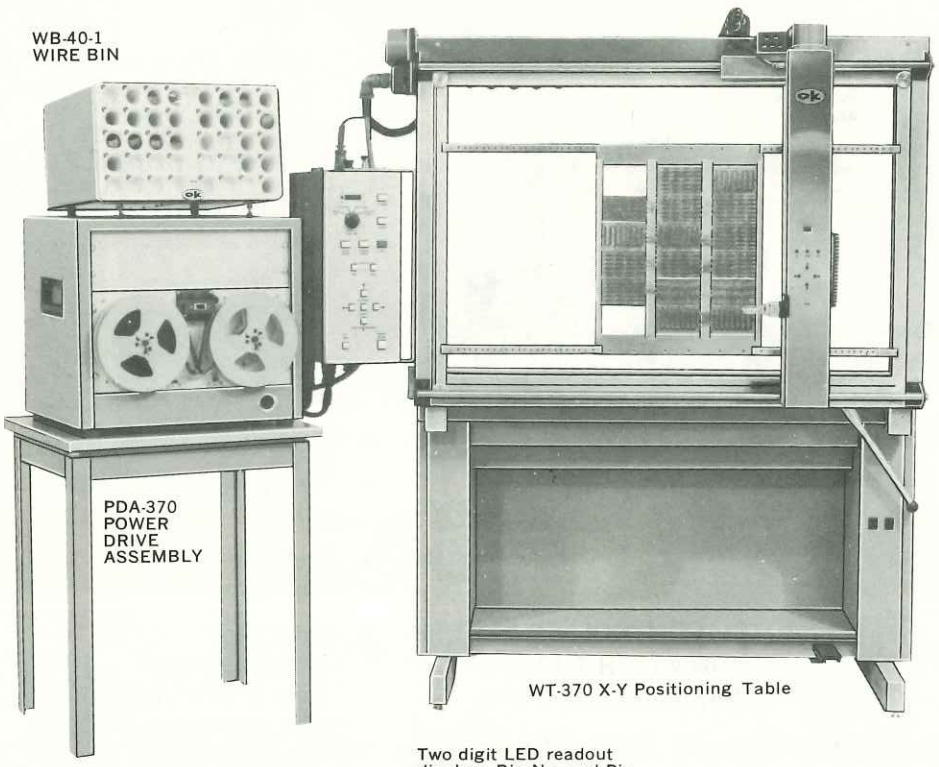
- ***COMPLETE USER SUPPORT*** – *SOFTWARE GENERATION AND TECHNICAL TRAINING.*
- ***PRODUCTION*** – *EXCEEDS THAT OF MACHINES COSTING TWICE AS MUCH.*
- ***PERFORMANCE*** – *600 INCH PER MINUTE TRAVERSE SPEED, FASTEST IN THE INDUSTRY.*
- ***PROTOTYPE ADAPTABILITY*** – *FOR LOW VOLUME WIRING, ELIMINATES ERRORS AND COSTLY DEBUGGING.*
- ***CONVENIENCE*** – *LIGHT, COMPACT MODULES.*
- ***UTILITY*** – *17" X 24", 24" X 40" AND 30" X 46", 38" X 46", AND 38" X 60" AREAS ACCOMMODATE MOST PANEL SIZES – NO LIMIT ON PANEL DEPTH.*
- ***PRECISION*** – *.005" POSITIONING INCREMENT, SIX TIMES THE ACCURACY REQUIRED FOR FAULTLESS PIN ENGAGEMENT.*
- ***VERSATILITY*** – *SWITCHES INSTANTLY BETWEEN EIA STANDARD RS-244A AND ASCII/ ISO TAPE FORMATS.*
- ***FLEXIBILITY*** – *N/C OR DIRECT COMPUTER CONTROL.*
- ***ECONOMY*** – *LOW COST, FASTEST SET-UP, EASY-TO-LEARN.*
- ***EXPERIENCE*** – *SATISFIED CUSTOMERS WORLDWIDE.*

WWM-370: MAXIMUM EFFICIENCY/INCREASED PRODUCTIVITY

The WWM-370 is the most advanced OK N/C wiring system, combining large panel capability and enhanced human engineering for maximum operator efficiency. In addition, the WWM-370 may be expanded to a computer controlled system to meet increased wiring requirements.

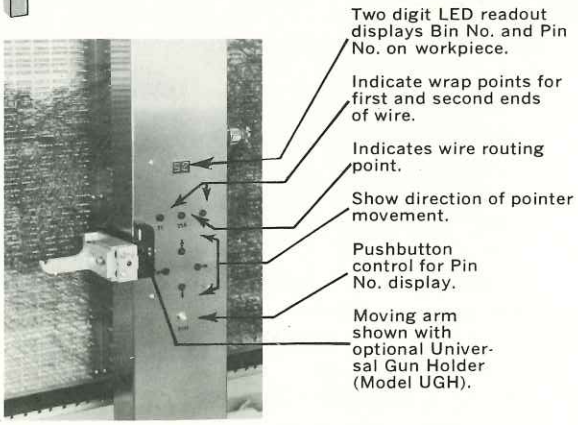
The controller electronics and control panel are mounted on the WT-370 Positioning Table to the operator's left for easier access. Directly in front of the operator on the WT-370 moving arm are located the Bin Number readout (normally on the wire bin), traverse direction indicators and the pointer advance switch.

A pushbutton below the Bin Number readout displays the workpiece pin number from information coded into the paper tape program. The positioning table also features a 24" x 40" (610 x 1020mm) wiring area, fully adjustable table height and control panel angle, and a pointer advance switch actuated with the tip of the operator's wiring tool.

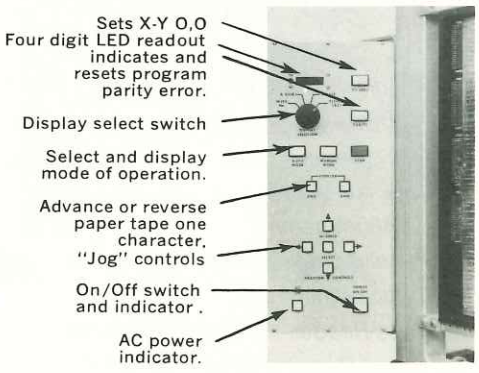


FEATURES

- *Controller and Operator Console mounted on Positioning Table*
- *Operator display panel on moving arm*
- *Pointer advance switch on pointer*
- *24" x 40" (610 x 1020mm) working area*
- *High speed tape input (150 characters/second)*
- *600 inch/minute (15,2m/minute) traverse speed*
- *.005 inch (0,127mm) positioning increment*
- *40-tube wire bin (80-tube optional)*
- *Easily adjusted wiring table height and tilt*
- *Computer control expandability*


Two digit LED readout displays Bin No. and Pin No. on workpiece.
Indicate wrap points for first and second ends of wire.
Indicates wire routing point.
Show direction of pointer movement.
Pushbutton control for Pin No. display.
Moving arm shown with optional Universal Gun Holder (Model UGH).

WT-370 MOVING ARM OPERATOR DISPLAY PANEL.


Sets X-Y 0,0
Four digit LED readout indicates and resets program parity error.
Display select switch
Select and display mode of operation.
Advance or reverse paper tape one character, "Jog" controls
On/Off switch and indicator.
AC power indicator.

UC-370 OPERATOR CONTROL PANEL.

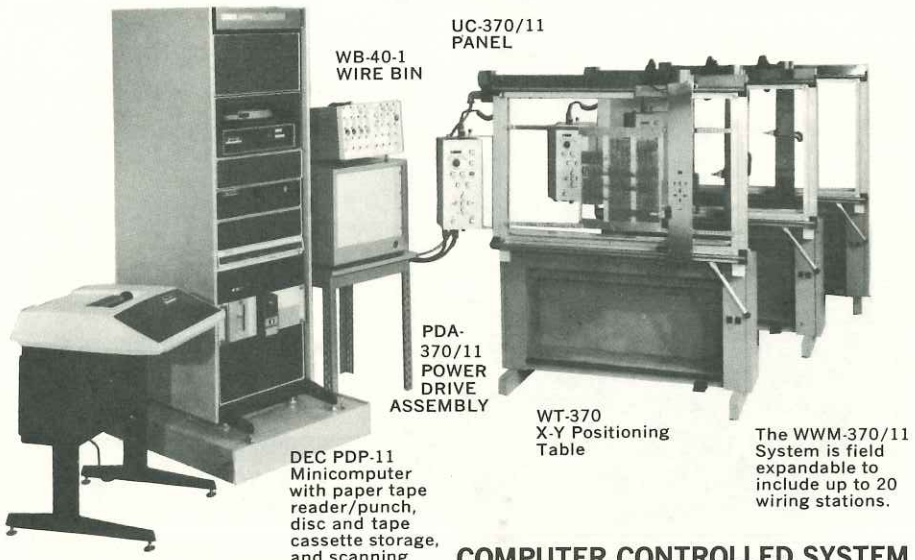
SEE PAGE 44 FOR SPECIFICATIONS

WWM-370/11 COMPUTER CONTROLLED WIRING SYSTEM.

The WWM-370/11 represents the integration of OK wire-wrapping technology with the process and control power of the PDP-11 minicomputer from Digital Equipment Corp. The result is a computer controlled wire-wrapping system offering high productivity and economy for both large and small system users.

Centralized system control is provided by PDP-11 Computer with magnetic disc memory and tape cassettes storage; paper tape reader/punch; DECwriter Keyboard/printer control console; and a unique high speed scanning multiplexer to efficiently service the wiring stations. Plus all necessary software for complete turn-key system operation.

Under control of the central computer may be as many as twenty wiring stations. Each station consists of a WT-370 Positioning Table with UC-370/11 Universal Controller, PDA-370/11 Power Drive Assembly, and WB-40-1 Wire Bin.


UC-370/11 PANEL
WB-40-1 WIRE BIN
PDA-370/11 POWER DRIVE ASSEMBLY
WT-370 X-Y Positioning Table
The WWM-370/11 System is field expandable to include up to 20 wiring stations.
DEC PDP-11 Minicomputer with paper tape reader/punch, disc and tape cassette storage, and scanning multiplexer.
DECwriter KEYBOARD PRINTER

COMPUTER CONTROLLED SYSTEM SHOWN WITH THREE WIRE-WRAPPING STATIONS.

FEATURES

- *Independent Multi-station control*
- *In-house program generation, diagnosis, editing*
- *Production control/management reporting*
- *Easily field expandable from 1-20 wiring stations*
- *Optional N/C backup on each station*
- *Complete system software*
- *Primary software in Fortran IV for easy user modification*
- *Wiring station features identical to WWM-370 N/C*
- *Added benefits of PDP-11 as general purpose computer when not in use for WWM control*

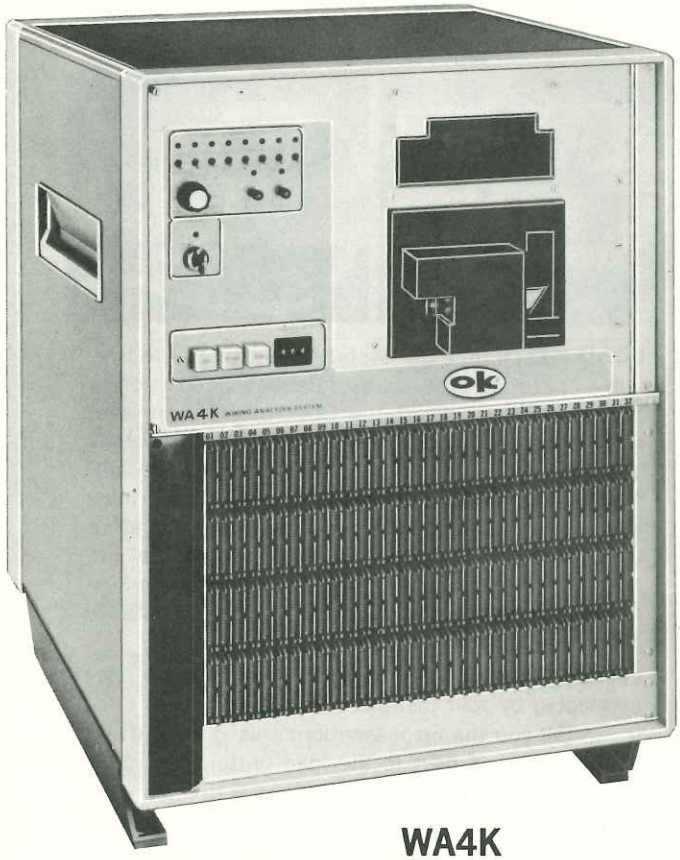
SPECIFICATIONS: WWM-370 AND WWM-370/11

WWM370 and WWM370/11
Wiring Station
Wiring Area 24" x 40" (610 x 1020mm)
Traverse Speed 600 inches/min. (15,24m/min)
Positioning Increment – .005 inches (0,127mm)
Wire Bin – 40 Tubes, adjustable depth, 19 inch (480mm) max.
Panel mounting depth – unlimited
Table adjustments – height, tilt
Tape Reader – 150 characters/sec.
Power Requirements – 50/60Hz
in any of the following ranges:

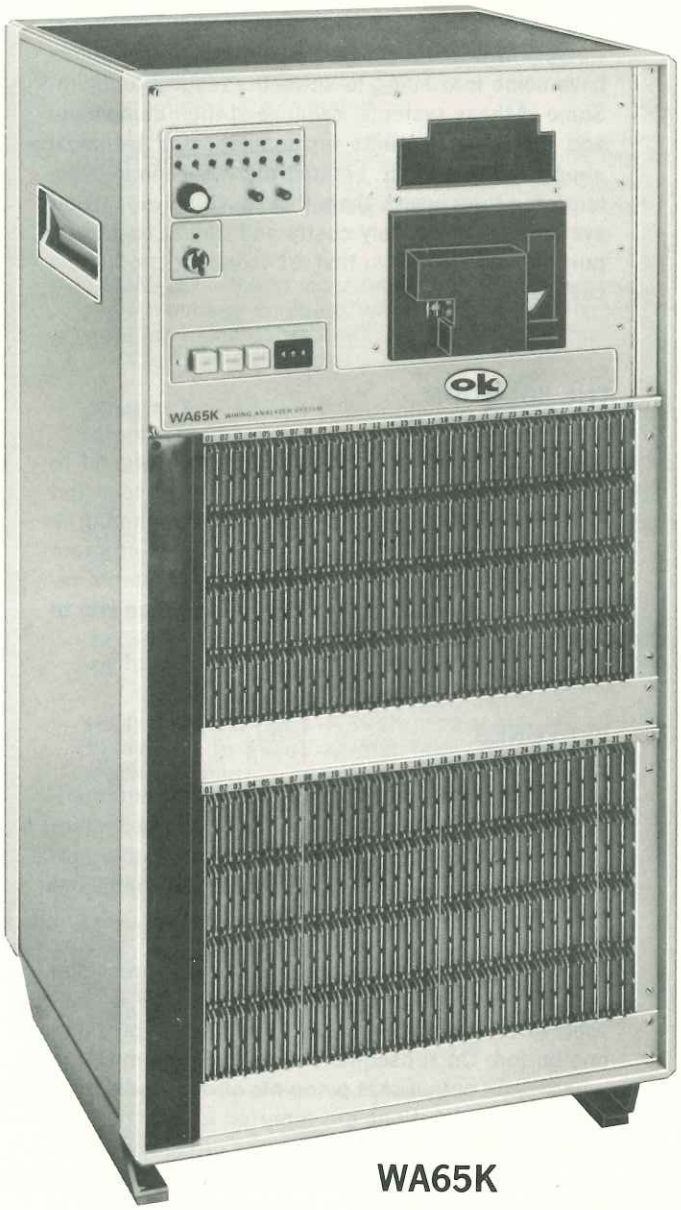
Range 1 – 90 to 108 VAC
Range 2 – 105 to 124 VAC
Range 3 – 180 to 216 VAC
Range 4 – 210 to 250 VAC

WWM-370/11 Computer Control System
PDP/11 Computer
16K Core Memory
RK05 Disc Drive/1.2M word disc
Cassette Drive
Tape Reader/Punch
Automatic Bootstrap Loader
Real Time Clock
Power failure protection/auto restart
LA30 Keyboard Printer
OK WSS Scanning Multiplexer
Power Requirements
115 VAC ± 10% 50Hz, 20 Amps
or 115 VAC ± 10% 60Hz, 20 Amps

SELF-PROGRAMMING CONTINUITY TESTING SYSTEMS



WA4K



WA65K

WA2K

SELF-PROGRAMMING CONTINUITY TESTING SYSTEMS

THE PROBLEM

As state-of-the-art electronic technologies advance, components become smaller and circuitry more complex. Manual point-to-point testing of backplanes, printed circuit card, and cable harnesses has become time-consuming, unrealistic, and extremely uneconomical. Various automated systems have come into being to solve the testing problem. Some of these systems, because of their complexity and their requirements for sophisticated technical support have, in fact, created more economic problems for their users than they have solved. Other systems are extremely costly and defeat their very purpose for being . . . that of reducing production costs.

THE SOLUTION

The O.K. Wiring Analyzer Systems are designed to meet the most stringent requirements of cost and ease of operation. The expense of programming is completely eliminated since the systems program themselves. And, the simplicity of the systems reduce the technical level of the person required to perform the tests.

FEATURES

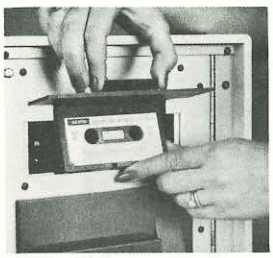
■ All of the required programming is done automatically by the System itself. The only input the System requires is connection to a known good sample network and a brief table indicating how you connected that interface.

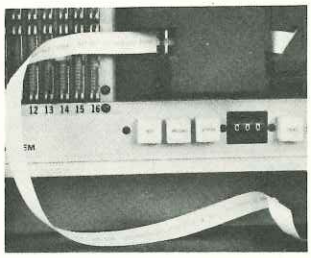
■ Once this has been established, simply press one button to create a program tape. This tape is then used to test unknown networks, again by pressing one button. On subsequent tests, the system prints a hard copy output that pinpoints all wiring discrepancies. Error locations are reported in user nomenclature assuring fast and accurate product repairs.

■ Finally, for cases where a known good sample is not available or not practical, Model WA65K is programmable. Correct wiring data can be entered via paper tape easily prepared on a common teletype. Of course WA65K is also automatically self-programming, like our other Systems, for use where a good sample is available.

OPERATING THE SYSTEM

It takes only four push buttons to control the entire system.





LOAD — Each time the System is turned on the System's operating procedures must be loaded into the memory. Simply insert the Operating System cassette into the tape drive and press the "LOAD" button. After approximately one minute the tape will rewind and the load lamp will go out. The printer will output "SYSTEM READY." Remove and store the cassette. The System is ready to operate and this procedure is not required again unless the System is turned off.

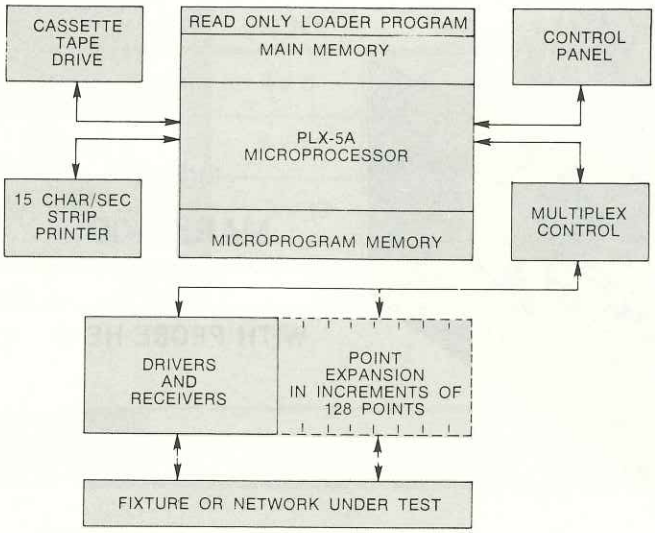
ENTER — The System needs to know how you have connected by your test piece so that in case of error it can tell you the error location. This is done using the digiswitches next to the load button according to a simple procedure. When you have defined your connection method for the digiswitches, push the "ENTER" button to load the definition into the System. When your definition is complete the System automatically prints out your definition so you can verify the entries you made on the digiswitches. If you made an error, simply repeat the entry.

RECORD — Connect your known good sample, put a blank cassette into the tape drive, and press the "RECORD" button. The System will inspect the sample electronically and automatically record the correct wiring onto the cassette. The sample can then be removed and the cassette used as a standard for subsequent tests of your product.

TEST — Connect your product and press "TEST" button. The System automatically compares the wiring on your product with the correct wiring stored on the cassette. In the event of a wiring error the System prints out both the type of error ("open" or "short") and the exact location to enable quick, accurate repair. At the end of the test the System prints out a test summary and reports "SYSTEM READY" for next test.

SELF-PROGRAMMING CONTINUITY TESTING SYSTEMS

SIMPLE, LOW COST, COMPACT, FLEXIBLE



THE BASIC SYSTEM INCLUDES:

- *Microprocessor*
- *Memory for standard Test Time*
- *Single cassette drive*
- *15 character/second strip printer*
- *Drivers and Receivers for point capacity ordered*
- *Operating system Tape Cassette*
- *Blank Tape Cassette*
- *Diagnostic Tape Cassette*
- *Printer Paper Tape*
- *Complete Documentation*

EASY TO OPERATE — Can be operated by non-technical personnel after only minutes of instruction.

SELF-PROGRAMMING—No sophisticated programs to establish or debug. The system programs itself in minutes, and this program is stored on reliable cassette tape.

LOW COST — Purchase price far below comparable testing systems. Operating cost are reduced, and programming is eliminated.

HIGH SPEED — 2400 points/minute minimum. Optional 15,000 points/minute. Printouts are made from a 15 character per second alpha-numeric strip printer.

RELIABLE — Power consumption is minimized and performance is enhanced with the use of all solid-state components. No relays to service. System is quiet and easy to maintain.

COMPACT — System is entirely self contained in a compact cabinet. Minimum space is required in your production or laboratory area.

EXPANDABLE CAPACITY — Plug in expandable to 2048, 4096 or 65,536 points in increments of 128 points.

SELF-DIAGNOSTIC — Diagnostic program tape checks system for proper operation and pinpoints any hardware failure.

SELF-MONITORING — Systems continually test themselves to guard against false results due to hardware failure.

OPTIONAL PROGRAMMABILITY

For cases where a known good sample is not available or not practical, Model WA65K is also programmable. You can input correct wiring data directly from Teletype punched tape reader or optional High Speed punched tape reader. The Test Cassette is generated automatically from data input instead of from known good sample. Test procedure is identical and System retains self-programming capability.

MODEL	MAXIMUM CAPACITY	SELF-PROGRAMMING	PROGRAMMABLE
WA2K	2,048 POINTS	YES	NO
WA4K	4,096 POINTS	YES	NO
WA65K	65,536 POINTS	YES	YES

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

DATAMASTER PROBING FIXTURES WITH REMOVABLE PROBE HEADS

REMOVABLE PROBE HEADS — HIGH SPEED — RELIABLE — AIR OPERATED

MODEL

MARK 400

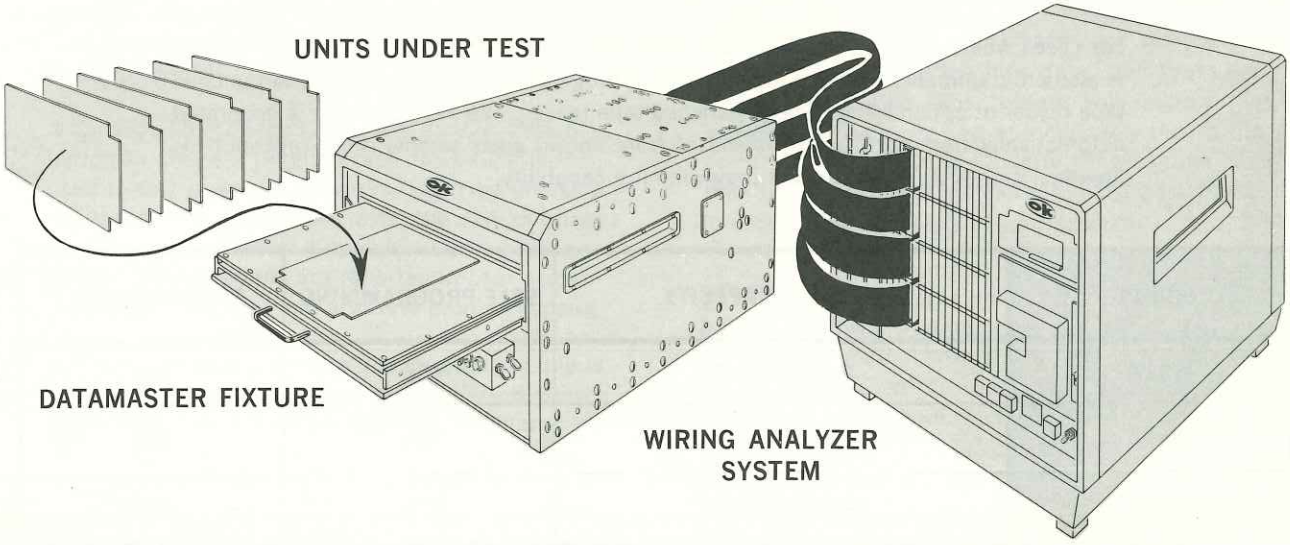
FIXTURE

WITH PROBE HEAD

DATAMASTER Probing Fixtures are interfacing devices used in conjunction with a test system such as Models WA2K, WA4K or WA65K in high speed testing of printed circuit boards, wire-wrapped panels and other circuitry having a multitude of contact points. Developed for accuracy and long-life they provide reliable and maintenance-free service.

FEATURES

- *REPLACEABLE PROBE HEADS*
- *INTERCHANGEABLE PROBE HEADS*
- *FAST, WITH ADJUSTABLE SPEED*
- *GUARANTEED ACCURATE ALIGNMENT*
- *ADJUSTABLE TRAVEL*
- *WON'T DAMAGE TEST PIECE*
- *SIMPLE TO OPERATE*
- *EASY TO MAINTAIN*
- *ENGINEERED FOR LONG LIFE*
- *SIZES UP TO 10,000 POINTS STANDARD*
- *LARGER SIZES ON REQUEST*
- *COMPLETE USER SUPPORT*



1. PLACE TEST PIECE IN DRAWER 2. CLOSE DRAWER 3. TURN SWITCH "ON" 4. PUSH W.A. "TEST" BUTTON. READ RESULTS OF TEST — REPEAT PROCEDURE WITH NEXT PIECE

DATAMASTER PROBING FIXTURES WITH REMOVABLE PROBE HEADS

MODEL	MAXIMUM CARD SIZE INCHES	MM	MAXIMUM CONTACTS	DIMENSIONS	PROBE HEAD MODEL NUMBER (1 INCLUDED)
MARK 100	4 x 6	100 x 150	500	8⅞" x 11¼" x 7½" 225 x 285 x 185mm	PH-100
MARK 300	9 x 12	230 x 300	3,000	15 11/16" x 17½" x 10½" 400 x 445 x 270mm.	PH-300
MARK 400	15 x 17	380 x 430	6,000	20" x 23" x 12½" 510 x 585 x 320mm	PH-400
MARK 500	24 x 26	610 x 660	10,000	30" x 38" x 16¼" 765 x 965 x 415mm	PH-500

DATAMASTER REMOVABLE PROBE HEADS

FEATURES

- *LOW PROFILE*
- *COMPACT*
- *EASILY INSERTED*
- *SIMPLE TO MODIFY*
- *SIDE RAILS FOR RACK STORAGE*
- *ENGINEERED FOR LONG LIFE*

MODEL	MAXIMUM CARD SIZE INCHES	MM	MAXIMUM CONTACTS	USED WITH FIXTURE MODEL
PH-100	4 x 6	100 x 150	500	MARK-100
PH-300	9 x 12	230 x 300	3,000	MARK-300
PH-400	15 x 17	380 x 430	6,000	MARK-400
PH-500	24 x 36	610 x 660	10,000	MARK-500

MODEL
PH-400
PROBE HEAD

SPECIFICATIONS COMMON TO ALL DATAMASTER FIXTURES.

Speed of Engagement:	1.8 sec. minimum, adjustable
Travel:	Adjustable, maximum travel as req. per Model
Power Requirements:	Air Pressure 35 to 60 psi. (2,5 to 4,25 Kg/cm²) 110 or 220 VAC, 10 Watts.
Electrical Specifications:	See probe contact specifications

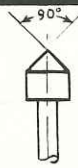
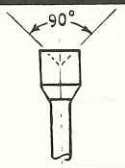
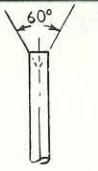
ACCESSORIES: 60 PSI (4,25 kg/cm²) PRESSURE GAUGE — 6 FOOT, ¼" O.D. (2m, 6,35mm O.D.) PRESSURE LINE — EXTENSION CORD AND FITTINGS FOR EXTERNAL CONNECTION SUPPLIED WITH EACH UNIT.

DATAMASTER PROBE CONTACTS

USED FOR INTERFACE IN TESTING ALL TYPES OF ELECTRONIC PRODUCTS

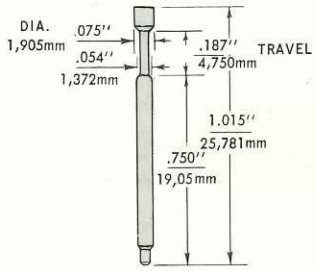
Developed for long life and dependability new replaceable Probe Contacts provide reliable access to printed circuit boards, wire wrapped panels, and other circuitry. Perfect for applications involving a multitude of contact points on uneven levels.

Probe Contacts are made to snug-fit into their sockets to provide an excellent, reliable electrical connection and can be readily removed for replacement. Probe Sockets can be permanently mounted in holes provided in an insulating board or panel and can be attached to a conductor either by crimping,soldering or wire wrapping.

PROBE CONTACT PART NO. 6250				
PROBE CONTACT HEAD STYLE				
DASH NUMBER	—A	—B	—C	—D
PROBE CONTACT HEAD STYLE				
DASH NUMBER	—E	—F	—G	—H

PROBE CONTACT

NO. 6250-A



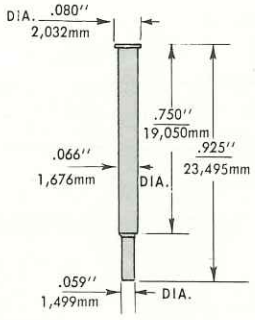
DIMENSIONS TYPICAL FOR ALL STYLES

DATAMASTER PROBE SOCKETS

PROBE SOCKET PART NO. 6252	
CRIMP TYPE	6252-C
SOLDER TYPE	6252-S
WIRE-WRAPPING TYPE	6252-W

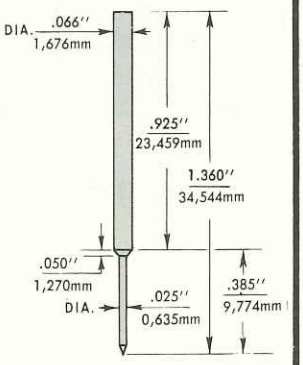
PROBE SOCKETS

NO. 6252 - C



DIMENSIONS TYPICAL FOR NO. 6252-S

NO. 6252-W



SPECIFICATIONS:

ELECTRICAL

Current Rating	3 amps, continuous
Contact Resistance	10 milliohms or less

MECHANICAL

Travel	3/16 in. (4,763mm)
Contact Pressure	Initial: 1.4 oz. (40gm), Final: 4 oz. (114gm)
Conductor Size	6252C-S:AWG 20, 22, 24 (0,80-0,65-0,50mm) 6252-W:AWG 26, 28, 30 (0,40-0,32-0,25mm)

MATERIALS AND FINISHES

Contact Plunger	Beryllium Copper, Rhodium plated per Mil-R-46085
Contact Barrel	Copper Alloy, Gold plated per Mil-G-45204A
Spring Members	Beryllium Copper, Gold plated per Mil-G-45204A
Probe Socket	Copper Alloy, Gold plated per Mil-G-45204A

OCTOBER 1976

CATALOGUE 36G

OK MACHINE AND TOOL CORPORATION

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